FINAL

ENVIRONMENTAL ASSESSMENT

PROPOSED JTF-6 MISSION JT423-98
MARFA, TEXAS

Prepared for:

JOINT TASK FORCE SIX

Prepared by:

U.S. ARMY CORPS OF ENGINEERS
FORT WORTH DISTRICT
Fort Worth, Texas

February 1998

FINDING OF NO SIGNIFICANT IMPACT

MARFA SECTOR ROAD IMPROVEMENT
PRESIDIO AND JEFF DAVIS COUNTIES, TEXAS

The primary purpose of the proposed project is to facilitate the U.S. Border Patrol's (USBP) mission to reduce drug activity along the border by increasing the USBP's ability to efficiently patrol the Marfa border sector. The proposed action would involve improvement of approximately 89.7 miles of existing road rights-of-way, construction of 1.8 miles of new road, and construction of some support facilities (e.g., helicopter landing pads, K-Span buildings, landing strips, obstacle course, borrow pits, etc.) in Presidio and Jeff Davis counties, Texas.

Proposed road improvements include grading and filling within the existing roadbeds. Clean, suitable fill material would be obtained from new borrow pits constructed along Chispa Road and Candelaria Border Road. One new road would be constructed and existing roads would have drainage ditches installed where feasible. Any additional alteration to the existing roads would be undertaken only after coordination with the Joint Task Force-Six (JTF-6) construction officer and would require additional National Environmental Policy Act (NEPA) documentation.

The proposed road improvement/construction activities would encompass 14.4 miles on Chispa Road and 11.5 miles on Sierra Vieja Repeater Road in Presidio and Jeff Davis counties, and 42.8 miles on Candelaria Border Road and 21.0 miles along Farm-to-Market (FM) Road 2810 in Presidio County. New road construction would involve 1.8 miles of Candelaria Border Road in Presidio County.

Road improvement/construction activities would begin on February 15, 1998, and are scheduled to continue through April 15, 1998 (dates are approximate). This action could be extended beyond the scheduled time frame due to inclement weather. No improvement activities are expected to occur during rainy periods, thereby reducing the potential for erosion and road degradation. Military personnel involved in this project include the Marine Wing Support Squadron-471 (MWSS-471) from Dallas, Texas; Marine Reserves from the 6th Engineer Support Battalion (6th ESB) with elements from the Engineer Support Company (ESC, 6th ESB) from Battle Creek, Michigan, and Bulk Fuel Company Alpha (Bulk Fuel Co A, 6th ESB) from Tucson, Arizona; Active Duty Marines from the ESC, 7th ESB from Camp Pendleton, California; and the 887th Light Engineer Company (887th LEC) from Fort Campbell, Kentucky. Personnel would stay at the two K-Span buildings and one field bivouac site adjacent to the Candelaria Border Road. Construction of the base camps and the K-Span

buildings to support engineering and construction units was covered in a December 1997 Record of Environmental Consideration.

Alternatives considered include no action, and the proposed action described above. The no action alternative would not facilitate the USBP mission to reduce illegal activities along the border. An alternative considered but eliminated from detailed analysis was upgrading a segment of the existing Candelaria Border Road north of Candelaria that is prone to flooding. This alternative was determined to be impractical because it would (1) be cost prohibitive due to the blasting costs to improve the road, (2) create environmental impacts along the Rio Grande riparian corridor, and (3) be cost prohibitive due to the additional maintenance costs resulting from flooding. Of the alternatives considered, the proposed action is more compatible with the USBP mission and would not significantly affect the resources contained within the Marfa Sector.

A Programmatic Environmental Impact Statement (PEIS) was prepared in 1994 for the Immigration and Naturalization Service (INS) and JTF-6 proposed projects that facilitate Law Enforcement Agency (LEA) missions to reduce illegal drug activity along the southwestern border of the United States. The PEIS addresses the cumulative effects of past and future projects undertaken by JTF-6 for numerous LEAs within the four southwestern states (Texas, New Mexico, Arizona, and California). This Environmental Assessment tiers from the PEIS and has been prepared by the U.S. Army Corps of Engineers, Fort Worth District, to assess the impacts of the proposed action and the no action alternative.

Based on the results of this environmental assessment no significant adverse effects to the natural environment, including any of the potentially eligible historic properties, are expected when implementing the proposed action. This determination is based on environmental design measures and biological/cultural resources surveys conducted in November and December 1997 to verify the existence of threatened and endangered species, wetland habitats, and historic properties. Design measures include prohibiting additional widening, reworking, or ground disturbance of existing roadbeds within the limits of cultural resource sites. JTF-6 will avoid important cultural resource sites. No endangered biological resources are affected by this action.

12 Feb 98

JAMES J. LOVELACE, JR.
Brigadier General, U.S. Army
Commanding

Date

EXECUTIVE SUMMARY

This Environmental Assessment (EA) was prepared in accordance with provisions of the National Environmental Policy Act (NEPA) of 1969 and Army Regulation (AR) 200-2. The scope of this EA addresses the potential impacts of proposed improvements on approximately 89.7 miles of existing road rights-of-way, construction of 1.8 miles of new road, and construction of some support facilities (e.g., helicopter landing pads, K-Span buildings, landing strips, obstacle course, etc.) in the U.S. Border Patrol (USBP) Marfa Sector in Presidio and Jeff Davis counties, Texas. In addition, this EA also addresses the potential cumulative impacts associated with a Joint Task Force Six (JTF-6) action in west Texas.

The Immigration and Naturalization Service (INS) has requested JTF-6 engineering support (military personnel and equipment) to improve 89.7 miles of existing, deteriorated roads and to construct 1.8 miles of new road in Presidio and Jeff Davis counties, Texas. The proposed road improvements would encompass 14.4 miles on Chispa Road and 11.5 miles on Sierra Vieja Repeater Road in Presidio and Jeff Davis counties, and 42.8 miles on Candelaria Border Road and 21.0 miles along Farm-to-Market (FM) Road 2810 in Presidio County. New road construction would involve 1.8 miles of Candelaria Border Road in Presidio County.

JTF-6 has requested that the U.S. Army Corps of Engineers (USACE), Fort Worth District, assess impacts of the proposed road improvements. Road improvements would include grading within the existing roadbed and filling with compactible, clean fill material collected from new borrow pits constructed along Chispa and Candelaria Border roads. One new road would be built and existing roads would have drainage ditches installed where feasible. Any additional alteration to the existing roads would be undertaken only after coordination with the JTF-6 construction officer and would require additional National Environmental Policy Act (NEPA) documentation. The proposed action would facilitate the USBP's mission to reduce illegal activities along the border by increasing the USBP's ability to effectively patrol the Marfa Sector. The number of patrols along the road segments is expected to increase. The road improvements would allow the USBP to respond more quickly and safely to sensors and sightings, more effectively transport unlawful human presence out of the country, and further decrease the amount of illegal drugs reaching United States markets.

Proposed road improvements would be undertaken by the Marine Wing Support Squadron-471 (MWSS-471) from Dallas, Texas; Marine Reserves from the 6th Engineer Support Battalion (6th ESB) with elements from the Engineer Support Company (ESC, 6th ESB) from Battle Creek, Michigan, and the Bulk Fuel Company Alpha (Bulk Fuel Co A, 6th ESB) from Tucson, Arizona; Active Duty Marines from the ESC, 7th ESB from Camp Pendleton, California; and the 887th Light Engineer Company (887th LEC) from Fort Campbell, Kentucky. Personnel would improve existing roads, construct a new road, install drainage ditches on existing roads, and construct various support structures (e.g., helicopter landing pads, K-Span buildings, landing strips, obstacle course, etc.) within the Marfa Sector. The construction of the base camps and the K-Span buildings was covered in a December 1997 Record of Environmental Consideration (REC).

Road improvements would begin on February 15, 1998, and are scheduled to continue through April 15, 1998 (dates are approximate). This action could be extended beyond the scheduled time frame due to inclement weather. To reduce the potential for erosion and road degradation, no improvement or construction activities would be conducted during rainy periods.

Alternatives considered include no action, and the proposed action described above. The no action alternative would not facilitate the USBP mission to reduce illegal activities along the border. An alternative considered but eliminated from detailed analysis was upgrading a segment of the existing Candelaria Border Road north of Candelaria that is prone to flooding. This alternative was determined to be impractical because it would: (1) be cost prohibitive due to the blasting costs required to improve the road, (2) create environmental impacts along the Rio Grande riparian corridor, and (3) be cost prohibitive due to the additional maintenance costs resulting from flooding. Of the alternatives considered, the proposed action is more compatible with the USBP's mission and would not significantly affect the resources contained within the Marfa Sector.

There would be no significant adverse effects to the natural environment associated with the proposed project. The proposed action would not significantly affect the air quality, wetlands, noise, or socioeconomics and would not pose significant hazardous waste concerns in the project area. The proposed action would not affect any species listed or proposed for listing as threatened or endangered in accordance with the Endangered Species Act. With environmental design measures specified as part of the proposed action, there would be negligible impacts to area land use, soil, surface water or groundwater resources, biological resources, and historic properties.

No wetlands were located within the survey corridor. A total of 143 drainage channels were located in the corridor. These were predominantly ephemeral drainages which crossed the existing road one time, although a few of these drainages crossed the existing road more than once, for a total of 158 crossings. These crossings (jurisdictional waters of the United States) meet the conditions of the Nationwide Permit (NWP) 14, *Road Crossings*. Since no more than 1/3 acre of fill would be placed in waters of the United States for each drainage crossing and no fill would be placed in special aquatic sites such as wetlands, the NWP 14 has been authorized for the proposed construction improvement impacts on the jurisdictional waters of the United States.

Proposed construction design included the replacement and/or placement of both low-water stream crossings and various drainage structures (e.g., culverts, concrete fords, gabions, and reno mattresses) at the road crossings to reduce scour and erosion. The replacement structures meet the conditions of NWP 3, *Maintenance*. The NWP 3 has been authorized since the discharge of fill material for the repair, rehabilitation, or replacement of any authorized, currently serviceable structure would have minimal environmental effects.

Potential soil erosion and related surface water runoff impacts are possible during construction of the proposed action. Procedures and methods that would be implemented to mitigate impacts to soils and surface water resources have been developed in the National Pollutant Discharge Elimination System (NPDES) Storm Water Pollution Prevention Plan (PPP) for the proposed

action. Recommendations outlined in the PPP would reduce surface water runoff from the project site to receiving drainages.

The vegetation in the project area is predominately Chihuahuan desert shrub. All potential turnaround areas would be limited to unvegetative sites and flagged to prevent potential effects from construction. However, the proposed action would only involve widening the existing roadway in areas of poor drainage (by the minimum amount necessary) to improve drainage and stabilize the roadway. Therefore, any new impacts to vegetation would be confined to non-roadway construction areas and the 1.8-mile section of new road construction. Up to three K-Span buildings, one obstacle course, two helicopter landing pads, 15 low-water crossings, six borrow pits, three equipment storage yards, three bivouac areas, numerous culverts, and two unpaved landing strips would potentially be constructed/upgraded along the proposed project corridor. These areas would impact less than 32.0 acres combined. Approximately 6.0 acres would also be cleared along the 24-foot by 1.8-mile section of new road construction just north of Candelaria. Since the new road construction is necessary in order to relocate the roadway out of the Rio Grande floodplain, potential negative impacts from vegetation loss should be offset by positive impacts resulting from the reduced vehicular traffic adjacent to the Rio Grande in the densely vegetated floodplain. Wildlife populations in the proposed project areas would not be significantly impacted by habitat loss due to the small areas affected, the scattered nature of the affected areas, and the lower quality of habitat compared to the surrounding undisturbed sites. In addition, no threatened or endangered species would be affected.

Minor direct and potential impacts to wildlife would occur from the proposed action. Direct impacts (i.e., injuries from construction equipment or noise disturbances) would be minimal due to the high mobility of most wildlife and the existing disturbed conditions of the proposed project areas. Potential impacts from habitat loss would also be minimal since most of the proposed construction areas have lower quality habitat and/or abundant habitat of identical or better quality nearby.

A cultural resources survey was conducted along the proposed project rights-of-way. A total of 27 new archeological sites and 42 isolated occurrences was identified as a result of the survey. Twenty-one of these sites are attributable to aboriginal activities and five sites are attributable to historic activities. One site contained both aboriginal and historic artifacts. Eleven of the newly recorded sites are recommended as ineligible for inclusion on the National Register of Historic Places (NRHP). The remaining 16 sites are recommended as potentially eligible for inclusion on the NRHP. A total of 15 previously recorded sites were revisited and one site was re-recorded. Previously recorded sites along the Chispa Road segment were recommended as potentially eligible for inclusion on the NRHP. Previously recorded sites along the Sierra Vieja Repeater Road segment were also considered potentially eligible for inclusion on the NRHP. One site along the FM 2810 segment was considered ineligible for inclusion on the NRHP. Based on the previously recorded site information obtained from the Texas Archeological Research Laboratory (TARL) and revisitation during the current study, all of the previously recorded sites revisited in the Candelaria Border Road segment are recommended as potentially eligible for inclusion on the NRHP. Cultural properties can be avoided by prohibiting additional

widening, reworking, or ground disturbance of existing roadbeds within the limits of the sites. Cultural properties located along the proposed new road right-of-way can be avoided without rerouting. JTF-6 will avoid historic properties until the State Historic Preservation Officer (SHPO) concurs with the archeological report. Continued avoidance of historic properties would be the preferred measure of mitigation during the project.

A Programmatic Environmental Impact Statement (PEIS) was prepared in 1994 for the INS and JTF-6 proposed projects that facilitate Law Enforcement Agency (LEA) missions to reduce illegal drug activity along the southwestern border of the United States. The PEIS addresses the cumulative effects of past and future projects undertaken by JTF-6 for numerous LEAs within the four southwestern states (Texas, New Mexico, Arizona, and California).

This EA tiers from the PEIS and has been prepared by the USACE, Fort Worth District, to assess the impacts of the proposed action and the no action alternatives. No significant adverse effects to the natural environment, including any of the potentially eligible historic properties, are expected when implementing the proposed action. This determination was based on environmental design measures and biological/cultural resources surveys conducted in November and December 1997 to verify the existence of threatened and endangered species, wetland habitats, and historic properties, and on the adoption of one or more of several possible preservation/avoidance measures for historic properties.

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1.0 INTRODUCTION

1.1 Background

The United States is experiencing high levels of drug use and increasing amounts of drug-related crime. Negative impacts of widespread drug use on society continue to affect the work force, educational system, and general law and order. Rising rates of violent crime, serious damage to the Nation's health and economy, and strains on vital relationships with international allies led the U.S. Congress to develop the National Drug Control Strategy (NDCS). The NDCS included Department of Defense (DOD) involvement, and in 1989, the Secretary of Defense defined a significant role in the counterdrug effort for Joint Task Force Six (JTF-6). JTF-6 is a Joint Service DOD agency assigned to assist law enforcement agencies that have drug interdiction responsibilities in the continental United States. Assistance includes operational and training efforts, design and construction efforts, or logistical actions, provided (1) there is a link to drug interdiction and (2) the assistance would provide all or part of the mission essential training elements of the military unit involved in the assistance.

A Programmatic Environmental Impact Statement (PEIS) was prepared for Immigration and Naturalization Service (INS) and JTF-6 proposed projects that facilitate Law Enforcement Agency (LEA) missions to reduce or eliminate illegal drug activity along the southwestern border of the United States (INS/JTF-6 1994). The PEIS addresses the cumulative effects of past and future projects undertaken by JTF-6 for numerous law enforcement agencies within the following four southwestern states: Texas, New Mexico, Arizona, and California. The PEIS describes the general types of projects expected and addresses the types of impacts that would be expected to result from the continuation of the JTF-6 program.

This Environmental Assessment (EA) tiers from the PEIS and addresses the potential impacts associated with proposed construction and road improvement activities to be completed by JTF-6 near the United States-Mexico border in the U.S. Border Patrol (USBP) Marfa Sector. Several support facilities such as base camps, K-Span buildings, helicopter pads, and an obstacle course are proposed to be constructed. The construction of the base camps and K-Span buildings was addressed in a Record of Environmental Consideration (REC) completed by JTF-6 in December 1997 (U.S. Army 1997). The lead agency for this road improvement/construction project is DOD.

The REC is allowed for certain categorical exclusions (CXs), as specified in Appendix A of Army Regulation (AR) 200-2. The REC concisely describes the proposed action, identifies the proponent, and explains why further environmental analysis and documentation is not required. The REC documents that National Environmental Policy Act (NEPA) requirements have been fulfilled or have been adequately assessed in existing pertinent documents. The REC also documents the use of CXs that require such records. The use of CX is intended to reduce paperwork and project delays for those activities which have been determined by the Army not to cause significant adverse effects, directly, indirectly, or cumulatively to the natural and/or human environment.

For the construction of the base camps and K-Span buildings, an A-7 CX was required. An A-7 CX states that construction does not significantly alter land use, provided the operation of the project when completed would not of itself have a significant environmental impact; this includes grants to private leasees for similar construction.

This EA was prepared by Geo-Marine, Inc. (GMI), for the U.S. Army Corps of Engineers (USACE), Fort Worth District, and was conducted with and in partial fulfillment of the JTF-6 obligations under the National Historic Preservation Act (NHPA) of 1966, as amended (Public Law [P.L.] 96-515); Archeological and Historic Preservation Act (AHPA) of 1974, as amended (P.L. 93-291); NEPA of 1969 (P.L. 90-190); Executive Order 11593 (*Protection and Enhancement of the Cultural Environment*); AR 200-2 (Environmental Effects of Army Actions); and Endangered Species Act (ESA) of 1973, as amended (P.L. 100-578).

1.2 Project Location

The proposed action would occur in the USBP Marfa Sector: (1) on the unpaved section of Farm-to-Market (FM) Road 2810 between Marfa and Ruidosa in Presidio County; (2) on the unpaved section of Chispa Road from its intersection with FM 2017 in Jeff Davis County southwest to the Candelaria Border Road in Presidio County; (3) on the unpaved Candelaria Border Road from its intersection with Chispa Road south to FM 170 at Candelaria in Presidio County; (4) on the proposed new road above the Rio Grande floodplain adjacent to the Candelaria Border Road; and (5) on the Sierra Vieja Repeater Road in Presidio and Jeff Davis counties. The proposed project involves the construction of various support facilities (e.g., helicopter landing pads, K-Span buildings, landing strips, obstacle course, etc.) and road improvement and construction activities (e.g., grading, improving drainage).

1.3 Purpose and Need

The purpose of the proposed action is to facilitate the USBP's mission to reduce illegal drug activity along the Unites States-Mexico border. From October 1996 to September 1997, 6,370 pounds (lbs) of marijuana, 2.92 lbs of heroin, and 5 lbs of cocaine, valued at $5,727,084.80, were seized in the Marfa Sector. Over 1,280 apprehensions have occurred in the area (Norman 1997).

The USBP Marfa Sector roads currently support only single-lane traffic and are in poor condition due to traffic and erosion. In several locations, the roads are impassable for two-wheel drive vehicles. Current use of access roads and Marfa Sector roads is estimated at one trip each by USBP personnel during a one-week period due to the poor condition of these roads. Road improvements and repairs are needed to facilitate USBP operations along the border. Additional construction projects would support military construction units working on road improvements and repairs, and would provide training facilities for the USBP and U.S. Army. These projects are needed to develop both skills and experience.

1.4 Applicable Environmental Statutes and Regulations

Table 1-1 lists pertinent environmental regulations that guided the development of this EA.

Table 1-1

Applicable Environmental Statutes and Regulations

Environmental Regulation
Federal Statutes
Archeological and Historic Preservation Act
Clean Air Act, as amended
Clean Water Act, as amended
Comprehensive Environmental Response, Compensation, and Liability Act
Endangered Species Act, as amended
Hazardous and Solid Waste Amendment
Migratory Bird Treaty Act
National Historic Preservation Act, as amended
National Environmental Policy Act, as amended
Native American Graves Protection and Repatriation Act
Noise Control Act
Resource Conservation and Recovery Act
Superfund Amendments and Reauthorization Act
Executive Orders, Memorandums, or Army Regulations
Flood Plain Management (Executive Order 11988)
Protection of Wetlands (Executive Order 11990)
Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Executive Order 12898)
Protection and Enhancement of the Cultural Environment (Executive Order 11593)
Army Regulation 200-1 (Environmental Protection and Enhancement)
Army Regulation 200-2 (Environmental Effects of Army Actions)
Army Regulation 420-74 (Natural Resources-Land, Forest, and Wildlife Management)
Army Regulation 420-40 (Historic Preservation)--under revision (Army Regulation 200-4, Cultural Resources Management)
State Statutes, Regulations, or Applicable Permits
Antiquities Code of Texas
Texas Oil Spill Prevention and Response Act/Texas Natural Resource Code
Texas Parks and Wildlife Code
Texas Water Quality Standards/Texas Consolidated Permit Rules

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

The proposed action, JTF-6 Mission JT423-98, involves proposed construction and road improvement activities in the USBP Marfa Sector (Figure 2-1). Construction activities would include:

- building three galvanized, 60 feet (ft) x 160 ft x 24 ft K-Span buildings: one at the north base camp just south of the Jeff Davis County line; one at the Ruidosa base camp located at the Headquarters parking lot of the Las Palomas Wildlife Management Area (WMA - Ocotillo Unit, if approved) adjacent to FM 170 north of Ruidosa; and one on the USBP station property in Marfa;

- establishing a tactical petroleum terminal (TPT) at the Marfa Municipal Airport fuel storage facility consisting of two 20,000-gallon fuel bags in a 40-ft x 20-ft rubber-lined bag farm with a 2-ft high earthen berm;

- building a 300-ft x 500-ft obstacle course at the USBP training facility at the Marfa Municipal Airport;

- constructing two helicopter landing pads: one at the north base camp (48 ft x 48 ft) for one UH-60 Blackhawk helicopter to be used for medical evacuation and one at the Ruidosa base camp (96 ft x 96 ft) for one CH-47 Chinook helicopter to be used for transporting construction supplies/personnel;

- constructing 15 low-water crossings consisting of either concrete fords (68 ft x 76 ft) or gabions/reno mattresses along Chispa Road (Van Horn Creek) and Candelaria Border Road (San Carlos, McComb, Quinn, Van Horn, and Capote creeks and numerous intermittent tributaries of the Rio Grande);

- constructing six 3-4 acre (ac) borrow pits: one along Chispa Road and five along Candelaria Border Road;

- constructing 250-ft x 150-ft equipment storage yards at the north base camp, adjacent to Capote Creek at the southern portion of Candelaria Border Road, and at McComb Creek;

- installing numerous 30-inch (in) 50.6-ft x 24-ft culverts on Chispa Road, Candelaria Border Road, Sierra Vieja Repeater Road, and FM 2810;

- constructing a septic tank system and leach field at the north and Ruidosa base camps;

- erecting three 150-ft x 150-ft tent cities: at the north base camp, at Ruidosa base camp, and near the McComb Creek area;

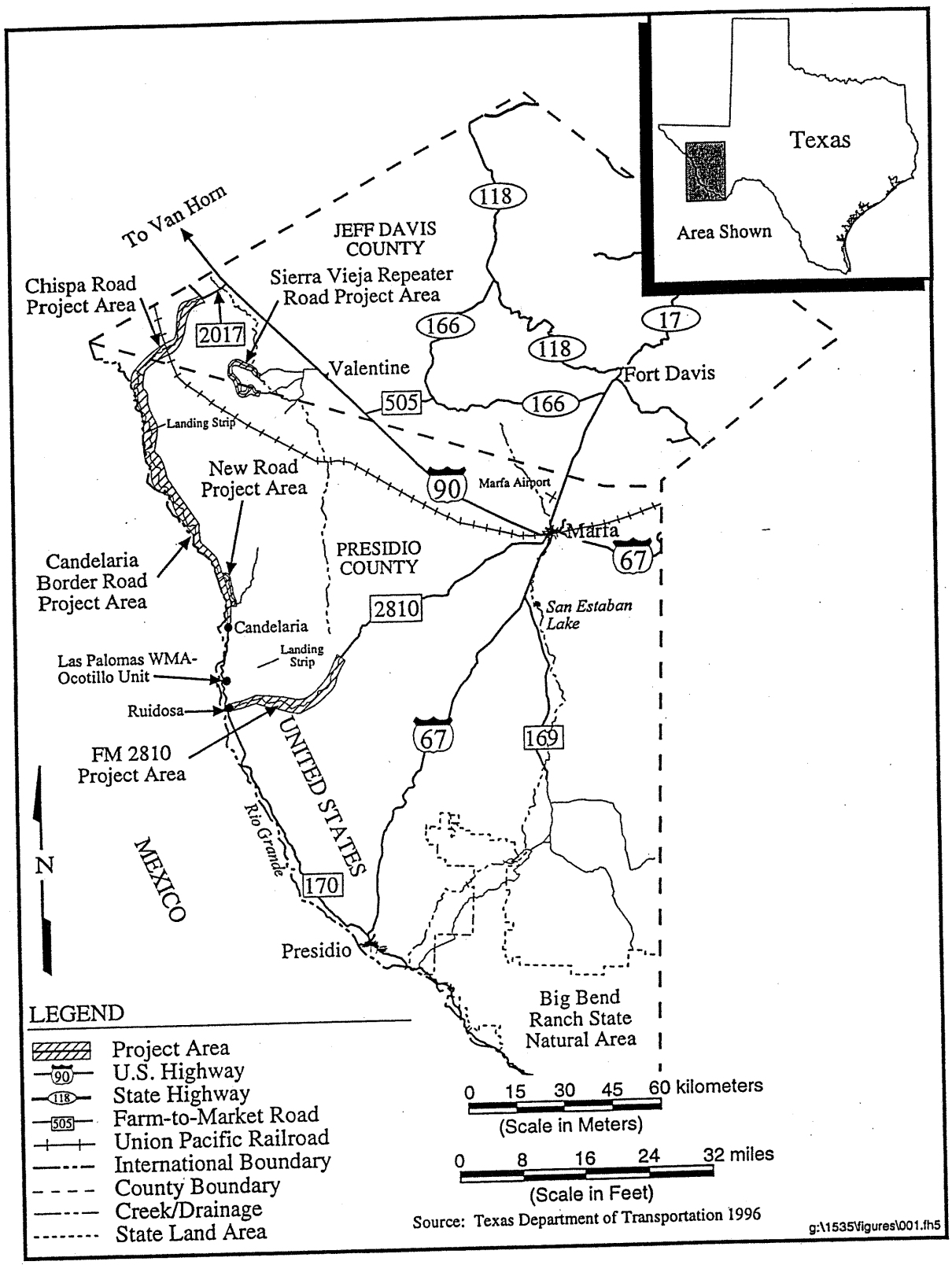

Figure 2-1. Location of the Marfa Project Area.

- establishing a Tactical Operational Center (TOC) at the north base camp and a laundry/bath point with generators at the north and Ruidosa base camps; and

- improving, by grading and compacting, two 500-ft unpaved landing strips along the Candelaria Border Road: one south of Chispa Road and one west of Las Palomas WMA - Ocotillo Unit.

Existing structures at the USBP station property in Marfa would be used for the maintenance shed, field kitchen, laundry, and communication tower.

Road improvement activities would include:

- Chispa Road: 14.4 miles (mi) of maintenance and repair of an existing unpaved 24-ft wide roadbed;
- Candelaria Border Road: 42.8 mi of maintenance and repair of an existing unpaved 24-ft wide roadbed;
- New Road above Rio Grande floodplain adjacent to Candelaria Border Road: 1.8 mi of a 24-ft wide new roadbed;
- FM 2810: 21.0 mi of maintenance and repair of an existing unpaved 24-ft wide roadbed; and
- Sierra Vieja Repeater Road: 11.5 mi of maintenance and repair of an existing 24-ft wide roadbed.

The Marine Wing Support Squadron-471 (MWSS-471), from Dallas, Texas, would build the two K-Span buildings along the Candelaria Border Road as bivouac sites and construct the two helicopter landing pads. Marine Reserves from the 6th Engineer Support Battalion (6th ESB) with elements from Engineer Support Company (ESC, 6th ESB) from Battle Creek, Michigan, and the Bulk Fuel Company Alpha (Bulk Fuel Co A, 6th ESB) from Tucson, Arizona, would do the following construction activities: (1) the ESC, 6th ESB would upgrade Chispa Road and the northern section of the Candelaria Border Road, and construct the K-Span building at the USBP station property in Marfa; and (2) the Bulk Fuel Co A, 6th ESB would establish the TPT at the Marfa Municipal Airport and construct the obstacle course at the USBP training facility at the Marfa Municipal Airport.

Active Duty Marines from ESC, 7th ESB, Camp Pendleton, California, would construct the 1.8 mi of new road above the Rio Grande floodplain adjacent to the Candelaria Border Road and would improve FM 2810 and approximately 4.0 mi of the Candelaria Border Road. The 887th Light Engineer Company (LEC) from Fort Campbell, Kentucky, would improve approximately 10.0 mi of the Candelaria Border Road, connecting the efforts of the ESC, 7th ESB in the south with the road improvements conducted by the ESC, 6th ESB in the north.

If this proposed action is implemented on the basis of this EA and a finding of no significant impact, road improvement activities would begin in the Marfa Sector on February 15, 1998, and would be completed by April 15, 1998 (dates are approximate). The construction of the base

camps and K-Span buildings was addressed by JTF-6 in the December 1997 REC. This action could be extended beyond the scheduled time frame due to inclement weather. Road improvement activities would not be conducted on rainy days in order to reduce the potential for erosion and road degradation. Fugitive dust would be minimized by applying surface dust suppressants or water to the roads being improved and at building construction sites. Drinking water and water for dust suppression activities at the north and Ruidosa base camps would be drawn from the Rio Grande and treated by a reverse osmosis water purification unit (ROWPU). Water for the USBP Marfa station area would be drawn from the Marfa municipal water supply. Calbinder Ammonium Lignin Sulfonate (Calbinder) could potentially be used, but at the present time is not in the improvement plans for FM 2810 and the Chispa, Candelaria Border, and Sierra Vieja Repeater roads. Calbinder contains no salts or oils, dissolves in water, and is sprayed onto the road during and after fill material compaction. Public access to roads would remain open during the proposed mission.

The K-Span buildings would be used as military bivouac sites. The proposed action would require 170 personnel from the MWSS-471; 75 personnel from the 6th ESB; 100 personnel from the ESC, 7th ESB; and 130 personnel from the 877th LEC. Due to a staggered deployment schedule, no more that 350 military personnel would be in the Marfa Sector at any one time. Equipment would be stored at the bivouac sites. Vehicle maintenance would be performed primarily at the bivouac sites. All pollution prevention measures would follow the National Pollutant Discharge Elimination System (NPDES) Pollution Prevention Plan (PPP) developed specifically for this project (Appendix A).

2.2 No Action Alternative

If the no action alternative is selected, additional USBP facilities proposed for the Marfa Sector would not be built. In addition, no improvements would be made to the Marfa Sector roads. USBP activity along the border would continue; however, any response to the increase in illegal drug activities would continue to be limited by poor access and road conditions. This action would not enhance drug enforcement activities and would not lower vehicle repair costs expended by the USBP because the existing roads are in poor condition and continue to degrade.

2.3 Alternatives Considered but Eliminated from Detailed Analysis

An alternative segment route for a portion of the Candelaria Border Road was located a few miles north of Candelaria, between a rock cliff and the Rio Grande. This route was determined to be impractical because it would: (1) be cost prohibitive due to blasting required to improve the road, (2) create environmental impacts along the Rio Grande riparian corridor, and (3) be cost prohibitive due to the additional maintenance costs resulting from flooding. Therefore, this alternative was eliminated from detailed analysis.

3.0 EXISTING ENVIRONMENT

The proposed project areas are scattered throughout the USBP Marfa Sector. The proposed action would involve road improvement activities in Presidio and Jeff Davis counties. Construction efforts would include the development of base camps and the construction of various support structures (e.g., helicopter landing pads, K-Span buildings, landing strips, obstacle course, etc.) in the Marfa Sector.

3.1 Land Use

Rangeland is the primary land use in the rural areas of Presidio and Jeff Davis counties. Approximately 99 percent of the rangeland is utilized for beef production. Agricultural land in Presidio County is less than one percent of the total land area. Secondary land uses involve hunting and tourism. Marfa is the only urban area in Presidio County. In Jeff Davis County, urban land use is minor and centered within the county seat at Fort Davis. Tourism in the area centers around recreational activities (JTF-6 1994).

Land use within the specific project areas includes:

- Open (rangeland) and rural areas - FM 2810 and unpaved existing and new border roads (Chispa, Candelaria Border, and Sierra Vieja Repeater); and
- Semi-urban to urban communities - cities of Candelaria, Ruidosa, and Marfa.

3.2 Soils

Twenty soil associations occur in Presidio and Jeff Davis counties (Figure 3-1 and Table 3-1). Ten of these soil associations are found within the proposed project areas. In Presidio County, the Nickel-Canutio soil association occurs along Chispa Road. Nickel-Canutio, Volco-Brewster, and Glendle-Anthony-Toyah soil associations are present along Candelaria Border Road. The Nickel-Canutio, Lozier, Brewster, and Musquiz-Santo Tomas-Boracho soil association are found along FM 2810. Both the Marfa Municipal Airport and the USBP station property within Marfa are in the Musquiz-Santo Tomas-Boracho and Gageby-Rockhouse soil associations, respectively.

In Jeff Davis County, Redona-Verhalen-Reagan, Volco-Brewsted-Ector, and Nickel-Canutio-Vieja soil associations occur along Chispa Road. The Redona-Verhalen-Reagan soil association is found along Sierra Vieja Repeater Road. The physical-chemical characteristics and potential for development activities (e.g., shallow excavations, small buildings, and local roads/streets) for each of these soil associations can be found in the soil surveys for Presidio County (Soil Conservation Service [SCS] 1973) and Jeff Davis County (Turner 1977).

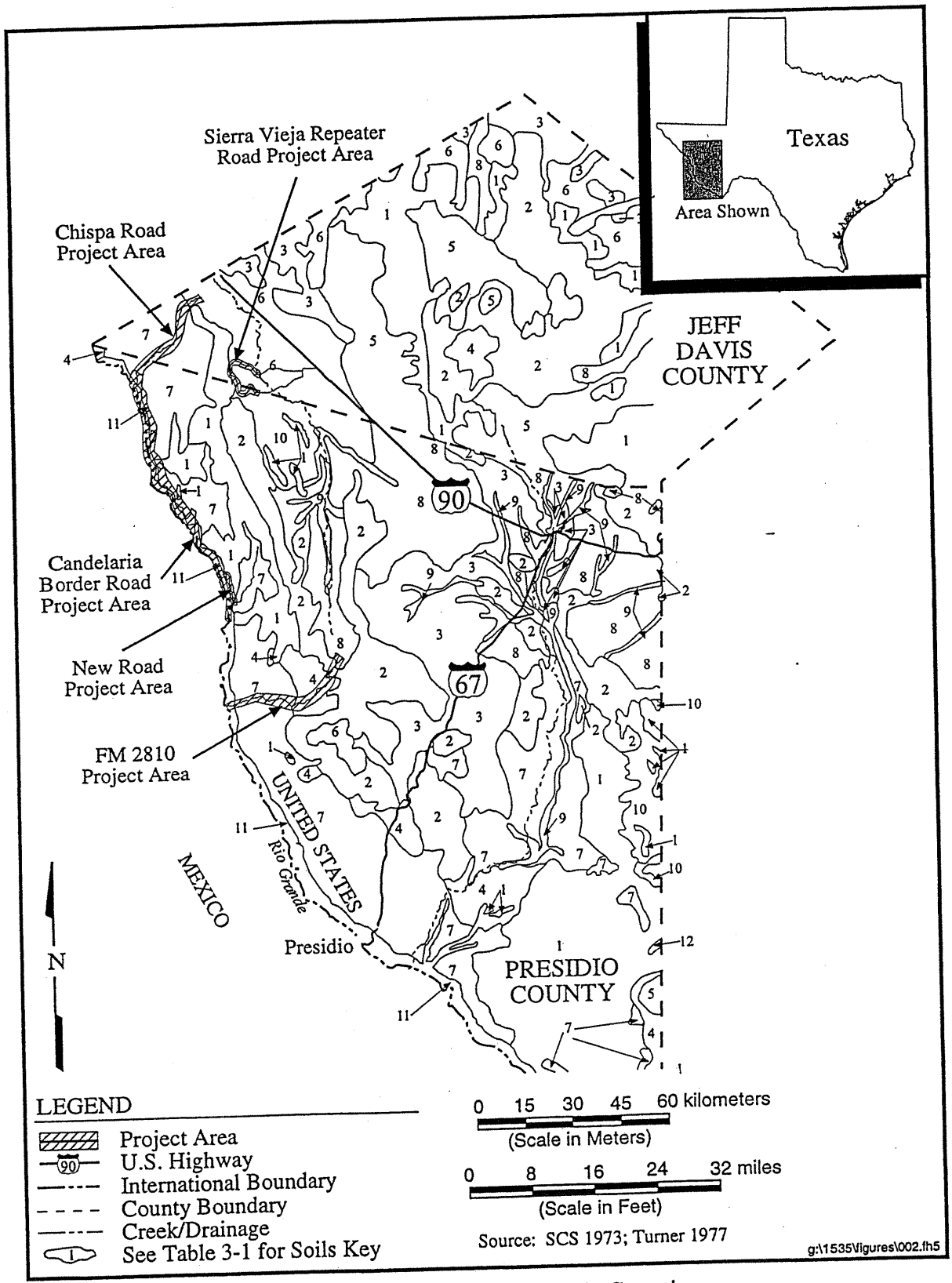

Figure 3-1. Soil Associations in Presidio and Jeff Davis Counties.

Table 3-1

List of Soil Associations Found in Presidio and Jeff Davis Counties

County	Soil Associations
Presidio	Volco - Brewster (1) Brewster (2) Boracho - Mitre (3) Lozier (4) Catto (5) Mainstay - Liv - Brewster (6) Nickel - Canutio (7) Musquiz - Santo Tomas - Boracho (8) Gageby - Rockhouse (9) Redona - Verhalen - Reagan (10) Glendale - Anthony - Toyah (11) Badland - Vieja (12)
Jeff Davis	Brewster (1) Mainstay - Liv - Brewster (2) Volco - Brewster - Ector (3) Puerta - Rock Outcrop - Madrone (4) Musquiz - Santo Tomas - Boracho (5) Redona - Verhalen - Reagan (6) Nickel - Canutio - Vieja (7) Gageby - Rockhouse (8)

Source: SCS 1973; Turner 1977

3.3 Water Resources

3.3.1 Surface Water

Surface water in the project areas consists of several ephemeral and intermittent creeks located in the Rio Grande Hydrologic Region (drainage basin), which includes the Upper Rio Grande Basin (JTF-6 1994). This segment of the Upper Rio Grande Basin includes that area above the Rio Grande's confluence with the Rio Conchos at Presidio up to the Riverside Diversion Dam in El Paso County (Figure 3-2). San Estaban Lake, south of Marfa on U.S. Highway 67, is the area's largest lake with a surface area of 762 ac providing water conservation storage (18,700 acre-feet) and flood control in Presidio County.

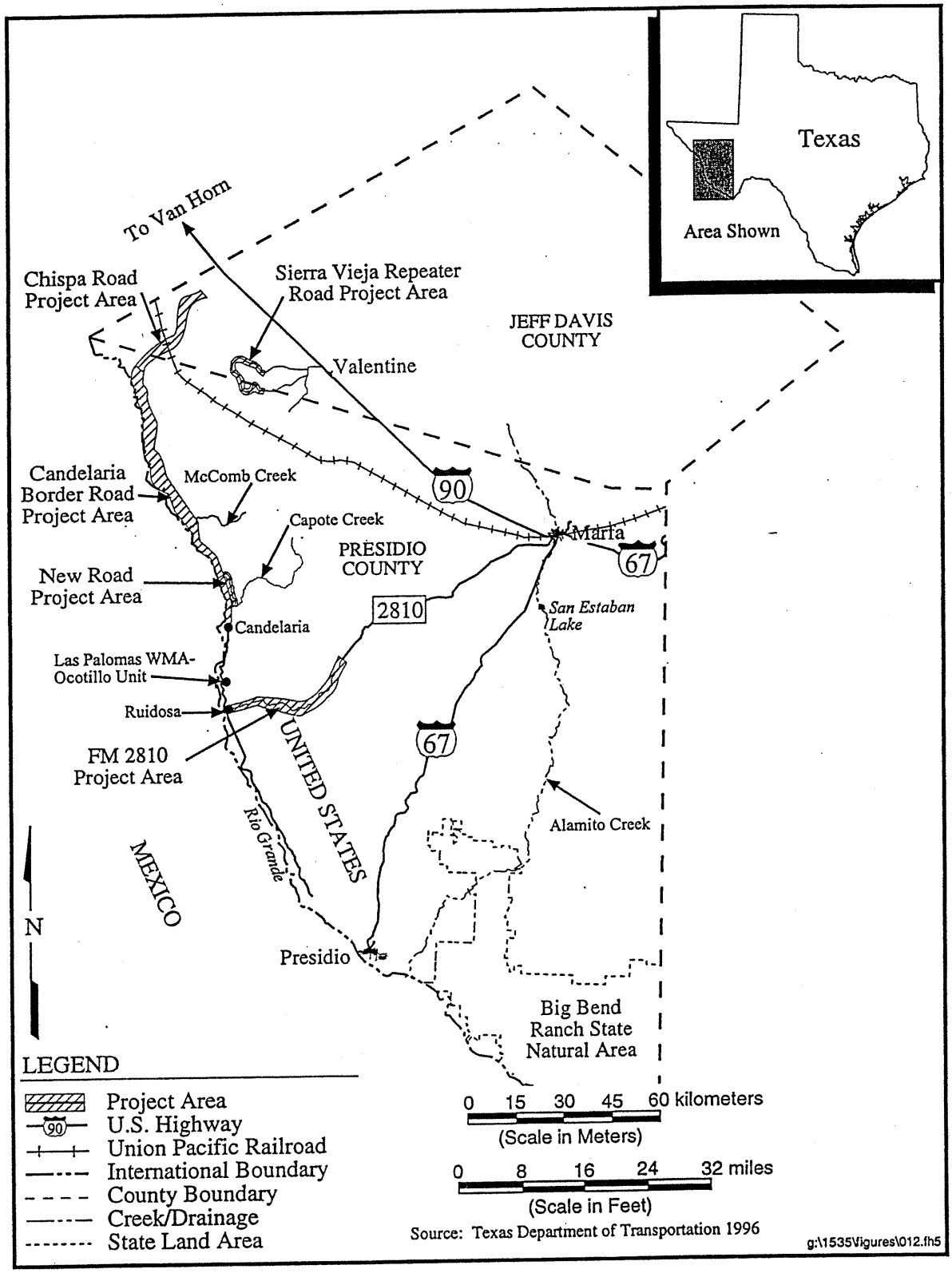

Figure 3-2. Rio Grande Hydologic Region.

The major cause of stream/riverine nonattainment for the Upper Rio Grande Basin (Segment 2307 - Rio Grande Basin below Riverside Diversion Dam) is effluent limited. The upper third of this segment supports limited contact recreation use due to the elevated fecal coliform levels. Ammonia nitrogen is also a concern in the same area. Total phosphorous, orthophosphorus, and chlorophyll-a are a concern within the entire segment. Average chloride, sulfate, and total dissolved solids concentrations exceed the segment water quality criteria. River flow in the segment is reduced due to irrigation withdrawals in the El Paso area and evaporation throughout the segment. Manganese in the sediment is also a concern. Segment 2307 was included in the multiphase Binational Rio Grande Toxic Substance Study (Texas Natural Resource Conservation Commission [TNRCC] 1996).

Due to the arid, subtropical climate in the lower elevations of the Trans-Pecos region, the majority of the surface drainages crossing the proposed project areas are dry most of the year. These surface drainages follow both named creeks and unnamed tributaries: Wild Horse Creek (Sierra Vieja Repeater Road) and Van Horn Creek (Chispa Road) in Jeff Davis County; and Van Horn, Quinn, San Carlos, McComb, and Capote creeks (Candelaria Border Road) and Arroyo Escondido, Pinto Canyon, Hot Springs Creek, Boulder Canyon, and Arroyo Tjieras along FM 2810 in Presidio County (see Appendices A-1 through A-5 in the PPP). No water data are available for these creeks and tributaries from the U.S. Geological Survey (USGS), TNRCC, or Environmental Protection Agency (EPA) STORET data.

Most of the land in the project areas is undeveloped, and there are few sources of contaminants in the area which could be introduced into these streams. Erosion caused by flash flooding of these streams could increase turbidity.

3.3.2 Groundwater

The two minor aquifers in the project areas are the West Texas Bolson and Igneous (Figure 3-3). In the western part of the Trans-Pecos region of Texas, several deep basins (West Texas Bolson) filled with erosional material of the Quaternary age contain significant quantities of groundwater. These filled basins, or bolsons, are the Red Light Draw, Eagle Flat, Green River Valley, Presidio-Redford, and Salt Basin. The Salt Basin can be divided into the Wild Horse, Michigan, Lobo, and Ryan flats. The upper part of the Salt Basin, extending north of Wild Horse Flat, contains groundwater with dissolved solids well in excess of 3,000 milligrams per liter (mg/l) and is, therefore, not included as part of the designated aquifer. These bolsons provide variable amounts of water for irrigation and municipal water supplies in parts of Culberson, Hudspeth, Jeff Davis, and Presidio counties. The communities of Presidio, Sierra Blanca, Valentine, and Van Horn also use these aquifers for municipal water supplies.

Deposits in each of these basins differ according to the type of rock material that has eroded from the adjacent uplands and the manner in which this material was deposited. Sediments range from coarse-grained volcanics and limestones redeposited as alluvial fans to fine-grained silt and clay lake deposits. Yields of some wells exceed 3,000 gallons per minute (gpm), but most wells produce less than 1,000 gpm. Water quality differs from basin to basin, ranging from fresh to

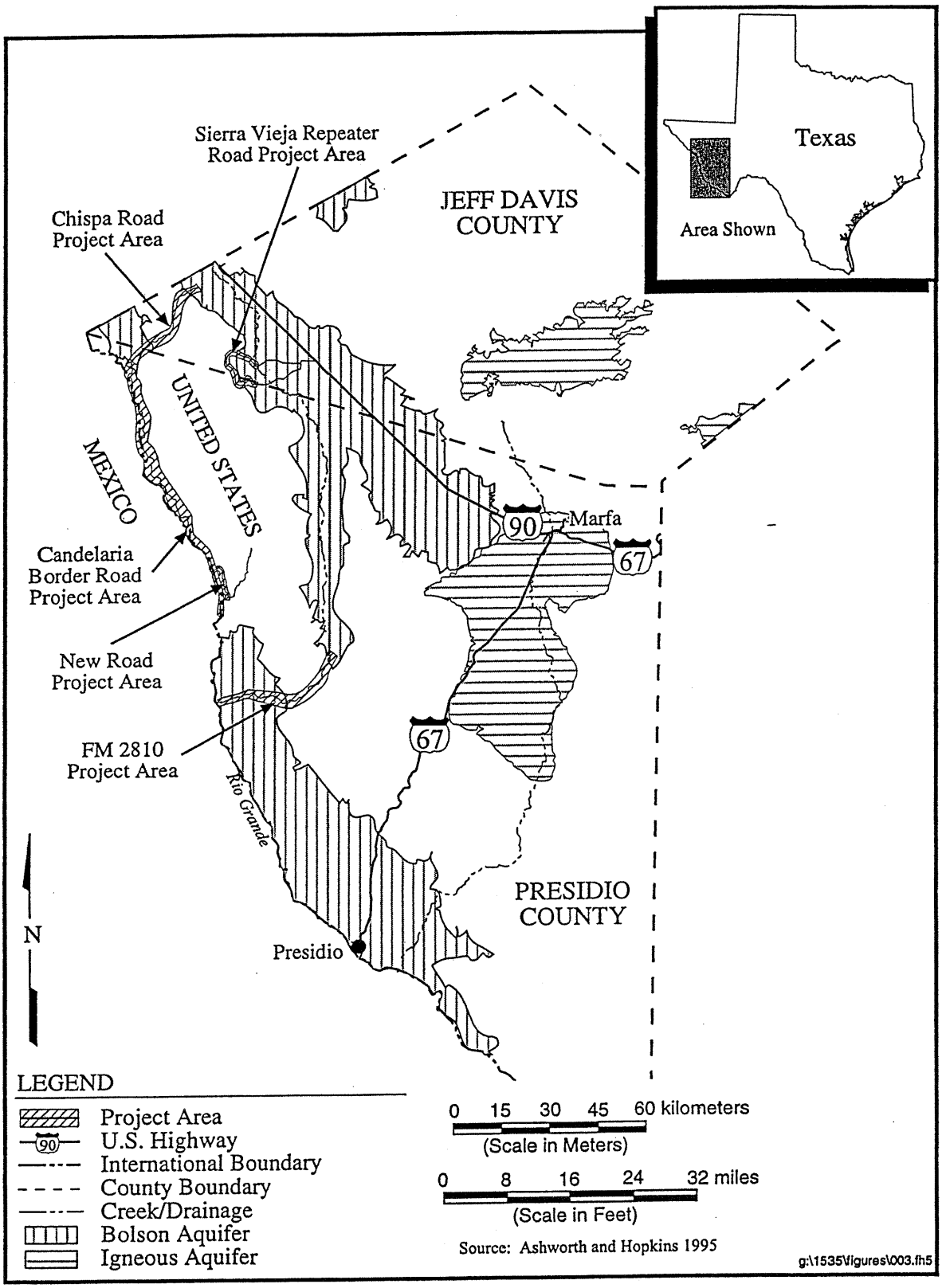

Figure 3-3. West Texas Bolsons and Igneous Aquifers in Presidio and Jeff Davis Counties.

slightly saline. Recharge is minimal in this region due to low annual rainfall and high evaporation rates (Ashworth and Hopkins 1995).

The Igneous aquifer occurs in three separate areas within Brewster, Presidio, and Jeff Davis counties. Groundwater occurs in fissures and fractures of lava flows, tuffs, and related intrusive and extrusive igneous rock of the Tertiary age. These rocks reach an average thickness of 900 to 1,000 ft. The cities of Alpine, Fort Davis, and Marfa use water from the aquifer for the municipal supply. The Igneous aquifer in Marfa includes parts of the Petan Basalt and the Tascotal Formation. Well yields are moderate to large in Marfa and small to moderate in the Alpine and Fort Davis areas. Yields from wells in the Igneous aquifer vary widely because the basalts have a wide range of permeability; lower permeabilities generally occur in the lower sections, and moderately high permeabilities occur in the faulted and fractured upper layers. Water quality is good for municipal and domestic uses. Elevated levels of silica and fluoride have been found in water from some wells, reflecting the igneous origin of the rock (Ashworth and Hopkins 1995).

Groundwater assessments for the West Texas Bolson and Igneous aquifers indicate several sources for potential contamination. The most common sources of contamination in these aquifers include: (1) increased chloride/sulfate concentrations along the Rio Grande that exceed secondary drinking water standards; (2) higher levels of total dissolved solids with levels exceeding 3,000 to 10,000 mg/l; and (3) natural/man-made low levels of nitrate (0-20 percent), except in Presidio County (41-60 percent), and fluoride (0-3 percent) that continually exceed the Federal drinking water standards (JTF-6 1994). Additional sources of potential contamination in the study area include radium in areas of radioactive anomalies or occurrences of radioactive minerals and nitrogen, phosphates, salts, and infectious agents from feedlots/animal wastes. In July 1986, the Texas Water Commission (TWC) designated Jeff Davis County as one of 17 critical groundwater areas in the State of Texas according to Chapter 52 of the Texas Water Code (TWC 1989).

3.3.3 Wetlands

Section 404 of the Clean Water Act (CWA) of 1977 (P.L. 95-217) authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States (Section 328.3[2] of the CWA) are those waters used in interstate or foreign commerce, subject to ebb and flow of tide, and all interstate waters including interstate wetlands. Waters of the United States are further defined as all other waters such as intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, impoundments of waters, tributaries of waters, and territorial seas. Wetlands are those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (USACE 1987).

A site-specific survey to locate jurisdictional waters of the United States (including wetlands) within the proposed project corridor was performed by a team of biologists who walked or drove

the entire 91.5 mi by 20 meter (m) corridor. The main survey was conducted over a 6-day period (November 11-16, 1997) by four biologists. An additional survey of one potential bivouac area and seven potential borrow pits was conducted by two biologists on December 16, 1997.

No wetlands were located within the 20-m survey corridor. A total of 143 drainage channels were located in the corridor. These were predominantly ephemeral drainages which crossed the existing road at least one time; a few of these drainages crossed the existing road more than once for a total of 158 crossings. In 24 areas, the drainages ran parallel to the existing road within the corridor, but did not cross the existing road.

Two of these drainages were perennial (McComb Creek and Rio Grande). McComb Creek is a small drainage which crosses the existing road once. The Rio Grande is a large drainage which flows parallel to the existing road in 11 areas, but only contacts the existing road at one location (0.6 mi north of Capote Creek).

3.3.4 Floodplains

Some of the proposed project areas may occur near or in the 100-year floodplain. A 100-year flood (intermediate regional flood) is defined as a flood level that occurs with an average frequency of once in 100 years at a designated location, although it may occur any year, even two years in a row. The Federal Emergency Management Agency (FEMA) is responsible for implementation and management of the National Flood Insurance Program under 44 Code of Federal Regulations (CFR); however, local governments (e.g., cities of Candelaria, Ruidosa, and Marfa) are responsible for administration of the floodplain within their respective municipal borders. FEMA regulates the impact of vertical development on surface water elevation and flood limits within the floodplain. Additionally, FEMA requires prior approval for all flood protection measures and has established a standard height for all protective levees of 3 ft above the 100-year floodplain elevation.

The floodplain delineations according to FEMA for the proposed project areas include the following designations: Zone A (Special Flood Hazard Area), areas of 100-year flood with no determination of base flood elevations and flood hazard factors, and Zone C, areas of minimal flooding. According to the Presidio County (unincorporated areas) FEMA maps (480530 0025B [Chispa Road]; 480530 0050B, 0125B, 0225B, and 0250B [Candelaria Border Road]; 480530 0350B and 0375B [FM 2810]), effective July 3, 1985, the unnamed/named creeks and/or tributaries occur in Zone A, and the rest of the areas fall in Zone C. FEMA maps (unincorporated areas) for Jeff Davis County (481251 0300B [Chispa Road] and 4801251 0450B, and 0325B [Sierra Vieja Repeater Road]), effective July 18, 1985, fall within Zone A for the unnamed/named creeks and/or tributaries in the project area and Zone C for the rest of the areas.

3.4 Air Quality

The air quality baseline consists of identifying applicable state and Federal ambient air quality standards (AAQS) and the current attainment status of the proposed project areas.

3.4.1 Federal and State Standards

Under the authority of the Clean Air Act (CAA) of 1977 (P.L. 95-95), the EPA has established nationwide air quality standards to protect public health and welfare, with an adequate margin of safety. These standards, known as the National Ambient Air Quality Standards (NAAQS), were developed for "six" criteria pollutants: ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter less than 10 microns in diameter (PM_{10}), sulfur dioxide (SO_2), and lead (Pb). The standards were presented in terms of concentration (parts per billion [ppb], parts per million [ppm], or micrograms per cubic meter [$\mu g/m_3$]) determined over various periods of time (averaging time). Short-term standards (one-hour, eight-hour, or 24-hour periods) were established for pollutants with acute health effects; long-term standards (annual average) were established for pollutants with chronic health effects.

Under the CAA, state and local agencies may establish air quality standards and regulations of their own, provided these are at least as stringent as the Federal requirements. The State of Texas has adopted the Federal NAAQS (40 CFR Part 50) as the state's air quality criteria (Table 3-2) (TNRCC 1997a).

3.4.2 Air Quality Control Regions

Presidio and Jeff Davis counties fall within the EPA's El Paso-Las Cruces-Alamagordo Air Quality Control Regions (AQCR Number [No.] 153). This is one of a nationwide system of AQCRs established by the EPA for air quality planning purposes (40 CFR Part 81). The two counties comprise TNRCC AQCR No. 6 (TNRCC 1997a).

3.4.3 Potential Sources of Air Pollution

The proposed project airshed encompasses largely rural and undeveloped areas; thus, air quality is generally good, except for occasional dust storms. Although Presidio, Texas, and Ojinaga, Mexico, are communities of intermediate size, major urban areas are not present in the project areas. No substantial urban/industrial air pollution occurs within the project area, unlike the larger border "sister cities" such as El Paso/Ciudad Juarez.

A number of anthropogenic (man-made) sources of air contaminants outside the region may affect the air quality of the proposed project areas. These could include industrial emissions, mobile (vehicular) emissions, area source emissions (e.g., emissions from numerous residences and small commercial establishments in an urban setting), dust resulting from wind erosion of agricultural lands, and pollutants transported into the proposed project areas on winds blowing from urban/industrial areas (i.e., Mexico and Texas Gulf Coast) (JTF-6 1994).

Table 3-2

State of Texas and the National Ambient Air Quality Standards (NAAQS)

Pollutant	Averaging Period	National Primary[a]	National Secondary[a]
Ozone (O_3)	1-Hour[b]	125 ppb	125 ppb
Carbon Monoxide (CO)	1-Hour[c]	35.5 ppm	35.5 ppm
	8-Hour[c]	9.5 ppm	9.5 ppm
Sulfur Dioxide (SO_2)	3-Hour Average[c]	No Standard	550 ppb
	24-Hour Average[c]	145 ppb	No Standard
	Annual Arithmetic Average[d]	35 ppb	No Standard
Nitrogen Dioxide (NO_2)	Annual[d]	54 ppb	54 ppb
Particulates (PM_{10})	24-Hour Average[b]	155 $\mu g/m^3$	155 $\mu g/m^3$
	Annual Arithmetic Mean[d]	51 $\mu g/m^3$	51 $\mu g/m^3$
Lead (Pb)	Quarterly[d]	1.55 $\mu g/m^3$	1.55 $\mu g/m^3$

[a] Parenthetical value is an approximately equivalent condition.
[b] Not to be exceeded on more than three days over three years.
[c] Not to be exceeded more than once per calendar year.
[d] Not to be exceeded.
ppb = parts per billion
ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter

Source: 40 CFR Part 50; TNRCC 1997a

3.4.4 Status of Air Quality

The proposed project areas are scattered throughout two counties. The responsibility to monitor the attainment of AAQS and the authority to regulate air emission sources is performed by the TNRCC. The TNRCC monitors ambient air quality in these counties and compares the monitoring data with applicable state AAQS and Federal NAAQS. The ambient air quality monitoring data available for AQCR No. 153, which includes Presidio and Jeff Davis counties, is limited to the metropolitan statistical area of El Paso. No monitoring data are available for PM_{10}, O_3, SO_2, NO_2, CO, or Pb within the proposed project areas (TNRCC 1997b).

3.4.5 Current Emissions within the Proposed Project Areas

Two major factors control the dispersion of pollutants, topography and climate. The topography in the project areas is characterized by a rugged and fragmented terrain. Little or no obstructions to wind movement occur in the typical range sites of clay flats, stony hills, gypsum flats, and gravelly outwashes. Generally, these terrain types will not trap pollutants and will allow a speedy dispersion of pollutants. The project areas are predominantly rangeland with minimal commercial and residential development (e.g., cities of Candelaria, Ruidosa, and Marfa).

Climate in the project areas is classified as an arid, subtropical zone at the lower elevations (below about 4,000 ft below sea level) and cool-temperate-humid with warm summers at the higher elevations. The mean January temperature is 28 degrees (°) Fahrenheit (F) and the mean July temperature is 91° F. Average annual rainfall is less than 12 in. Relative humidity for the project areas ranges from 55 percent in the morning to 27 percent in the afternoon. Air flow, averaging 9.4 miles per hour (mph), is influenced by the mountains, especially in the winter. Winds are from the south in the spring, summer, and fall and predominantly from the north during winter which helps to disperse pollutants in the project areas (Ramos 1997).

The project areas are within AQCR No. 153 which has exhibited exceedances of O_3 and PM_{10} in the El Paso area. The TNRCC Monitoring Operating Division in Austin, however, indicates that Presidio and Jeff Davis counties are designated as in attainment for SO_2, NO_2, and CO; unclassifiable for PM_{10} and O_3; and undesignated for Pb. Therefore, it can be concluded that concentrations of the criteria pollutants within the project area fall below the applicable NAAQS limits established for the protection of public health (TNRCC 1997b).

3.5 Biological Resources

3.5.1 Vegetation Communities

The vegetation communities of Texas can be defined on the basis of the interaction of geology, soils, physiography, and climate. These vegetation areas set the stage for a wide array of land uses that vary from intensive cropland agriculture and extensive ranching (e.g., Clay Miller ranch) to urban development (e.g., City of Marfa). The major native vegetation communities encompassing the project areas are within the Basin and Range Study Area of the Trans-Pecos, Mountains, and Basins community. Vegetation includes the following associations: Creosotebush (*Larrea tridentata*)-Lechuguilla Shrub (*Agave lecheguilla*) and Tobosa (*Hilaria mutica*)-Black Grama Grassland (*Bouteloua gracilis*) in the rural areas and Mesquite (*Prosopis glandula*)-Saltcedar Brush/Woods (*Tamarix* species [spp.]) along the Rio Grande floodplain (Figure 3-4). Plants commonly found in these vegetation communities are listed in Table 3-3, and the common/scientific names of the species are listed in Appendix B.

Based on field surveys conducted in the proposed project areas, the vegetation type and amount of cover is provided in the following paragraphs.

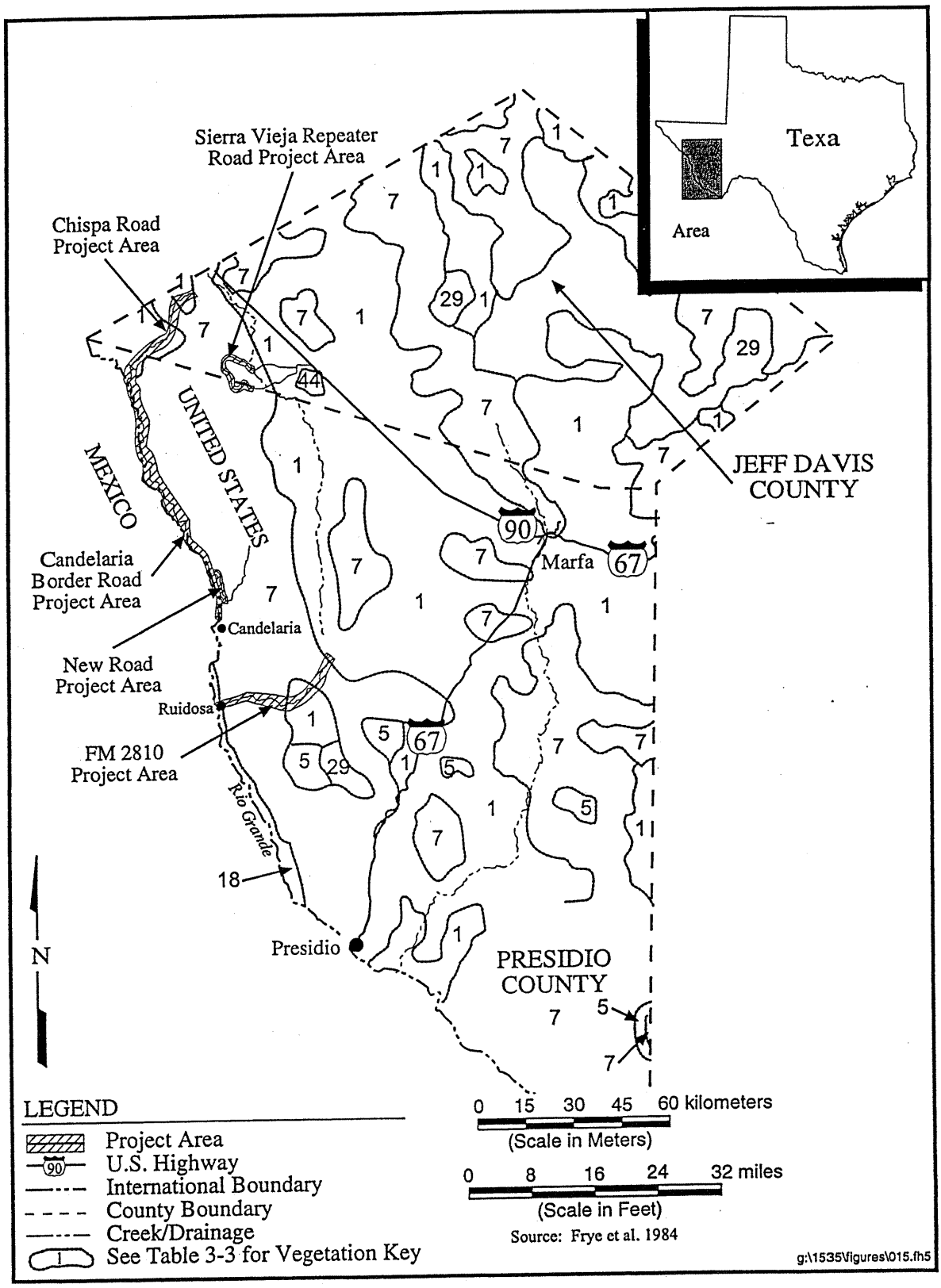

Figure 3-4. Vegetation Communities in Presidio and Jeff Davis Counties.

Table 3-3

Major Vegetational Types and Commonly
Associated Plants in Presidio and Jeff Davis Counties

TRANS-PECOS MOUNTAINS AND BASINS

Creosotebush - Lechuguilla Shrub (7)

Commonly associated plants include mesquite, yucca, lotebush, ocotillo, javelina bush, catclaw acacia, whitethorn acacia, whitebush, ceniza allthorn, guayacan, Texas pricklypear, pitaya, tasajillo, chino grama, black grama, fluffgrass, range ratany, skeletonleaf goldeneye, tarbush, and mariola.

Tobosa - Black Grama Grassland (1)

Commonly associated plants include blue grama, sideoats grama, hairy grama, burrograss, bush muhly, Arizona cottontop, javelina bush, creosotebush, palmella, whitehorn acacia, cholla, broom snakeweed, and rough menodora.

Mesquite - Saltcedar Bush/Woods (18)

Commonly associated plants include creosotebush, cottonwood, desert willow, giant reed, seepwillow, common buttonbush, burrobush, whitethorn acacia, Australian saltbush, fourwing saltbush, lotebush, wolfberry, tasajillo, guayacan, alkali sacaton, Johnsongrass, saltgrass, cattail, bushy bluestem, chino grama, and Mexican devil-weed.

Gray Oak - Pinyon Pine - Alligator Juniper Parks/Woods (29)

Commonly associated plants include Emory oak, silverleaf oak, Gamble's oak, mountain mahogany, evergreen sumac, mountain snowberry, Texas madrone, southwestern chokeberry, bullgrass, Pringle needlegrass, finestem needlegrass, pine dropseed, sideoats grama, blue grama, pine muhly, pinyon ricegrass, largeleaf oxalis, heartleaf groundcherry, and Torrey anthericum.

Yucca - Ocotillo Shrub (5)

Commonly associated plants include catclaw acacia, whitethorn acacia, sotol, cholla, Torrey yucca, palmella, brickellbush, mesquite, javelina bush, beargrass, black grama, chino grama, fluffgrass, broom snakeweed, and jimmyweed.

Crops (44)

Commonly associated plants include cultivated cover crops or row crops providing food and/or fiber for either man or domestic animals.

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* Please refer to Appendix B for list of common/scientific names.

Source: McMahan et al. 1984

Vegetation adjacent to the Chispa Road segment, the majority of the Candelaria Border Road (including the 1.8 mi of new road construction) segment, and the FM 2810 segment of the proposed project corridor is predominantly Chihuahuan desert scrub. Common dominants in this community include creosotebush, mesquite, whitethorn acacia (*Acacia constricta*), ocotillo (*Fouquieria splendens*), fourwing saltbush (*Atriplex canescens*), and lechuguilla. Bare ground is common in this community and few grasses or forbs are present. Consequently, ground cover is only about 35 percent.

Vegetation adjacent to the Candelaria Border Road segment within the Rio Grande floodplain is composed of mesquite-saltcedar (*Tamarix chinensis*) brush/woods. These areas contain dense stands of saltcedar with approximately 95 percent cover. Additionally, a few small open flats with widely scattered seepweed (*Suaeda* sp.) or creosotebush are located on the Candelaria Border Road above the floodplain. Ground cover within these flats is less than 5 percent.

The Sierra Vieja Repeater Road and the northern 2.5 mi of FM 2810 are located in blue grama/juniper (*Bouteloua gracilis/Juniperus* sp.) grasslands. Vegetation cover is approximately 60 percent.

3.5.2 Wildlife Communities

Texas contains an enormous diversity of environment for wildlife. The distribution of these environments is controlled generally by climatic conditions and locally by topographic factors. Physiographic features such as scarps, plateaus, plains, mountains, drainage systems, and soil systems also influence wildlife distribution.

3.5.2.1 Aquatic

Distribution patterns of freshwater fish in Texas closely resemble those of terrestrial organisms, with the controlling factors being climate and geology. Hubbs et al. (1977) divided the upper part of the Rio Grande into three faunal assemblages: the saline Rio Grande fauna (made up of widely distributed and salt tolerant species) upstream from the Rio Conchos confluence; the Rio Conchos-Rio Grande fauna (mostly South Texas and Mexican species) in the Rio Grande between Rio Conchos and Pecos River; and the tributary creek fauna (Chihuahuan species plus some derivative forms) that depend on tributary creeks for all or part of their life history stages. A total of 34 species has been reported from the upper Rio Grande. The saline Rio Grande faunal assemblage has a limited diversity due to the harsh conditions of salinity and periodic interrupted stream flows. This faunal assemblage consists of 11 species dominated by four widespread species: gizzard shad (*Dorosoma cepedianum*), common carp (*Cyprinus carpio*), red shiner (*Cyprinella lutrensis*), and green sunfish (*Lepomis cyanellus*). The other two faunal assemblages within the upper part of the Rio Grande include 22 and 23 fish species, respectively, and are dominated by minnows (JTF-6 1994).

3.5.2.2 Terrestrial

The Chihuahuan Biotic Province of the Trans-Pecos, Mountains, and Basins community contains faunal species characteristic of the Mexican tableland and the southwestern deserts. In many cases, species in the basin deserts and grasslands are different than the species of the more mountainous regions, although some species range over both mountains and basins. A regional overview of terrestrial wildlife communities occurring in Presidio and Jeff Davis counties is presented in the following paragraphs.

The native faunal components of the Trans-Pecos, Mountains, and Basins community in Presidio and Jeff Davis counties support 321 species of birds which are dominated by wood warblers (Parulinae-37 species); sparrows and towhees (Emberizinae-27 species); swans, geese, and ducks (Anseriformes-24 species); and tyrant flycatchers (Tyranninae-21 species). The majority of these species occur in spring and fall when neotropical migrants (e.g., flycatchers, warblers) pass through on their way to either summer breeding or wintering grounds and during the winter when summer resident birds (e.g., robins [*Turdus*], kinglets [*Regulus*], and sparrows) from the northern United States and Canada arrive to spend winter (JTF-6 1994).

The majority of the 91 mammalian species found in the project areas are insectivorous bats (Chiroptera) and rodents (Rodentia; e.g., rats and mice [Muridae], squirrels [Sciuridae], and pocket mice and kangaroo rats [Heteromyidae]). Only 17 species of amphibians are found within the project area; true frogs (*Rana*), spadefoot frogs (*Spea*), and toads (*Bufo*) are the most abundant and common amphibian groups, comprising 71 percent of the population. The reptilian community, consisting of 86 species, is dominated by the commonly found colubrid snakes (35 percent: small burrowing; large brown-blotted terrestrial [*Heterodon/Elaphe*, etc.]; racers, indigo, and whipsnakes [*Masticophis*]; garter and ribbon [*Thamnophis*]; and aquatic [*Nerodia*]) and various species of commonly occurring iguanid lizards (Iguanidae) and whiptails (Teiidae) (JTF-6 1994).

Lists of birds, mammals, amphibians, and reptiles by habitat type commonly occurring in Presidio and Jeff Davis counties are presented in the Environmental Baseline Texas Land Border Volume 2 document (JTF-6 1994).

3.5.3 Threatened and Endangered Species

3.5.3.1 Federal

The ESA of 1973 (P.L. 93-205) and the amendments of 1988 (P.L. 100-578) were enacted to provide a program of preservation for endangered and threatened species and to provide protection for ecosystems upon which these species depend for their survival. The ESA requires all Federal agencies to implement protection programs for designated species and to use their authorities to further the purposes of the Act. Responsibility for the identification of an endangered or threatened species and for the development of recovery plans lies with the Secretary of Interior and Secretary of Commerce. The U.S. Fish and Wildlife Service (USFWS) is responsible for implementing the ESA within the continental United States.

An endangered (E) species is a species which is in danger of extinction throughout all or a significant portion of its range. A threatened (T) species is a species likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Proposed species are those which have been formally submitted to Congress for official listing as endangered or threatened.

In addition, the USFWS has identified species which are candidates for possible addition to the list of Endangered and Threatened Wildlife and Plants (50 CFR Parts 17.11 and 17.12) under the ESA of 1973, as amended. Candidate Category 1 species are now listed as "candidates." Candidate (C) species are defined as those species for which the USFWS has on file sufficient information on their biological status and threat(s) to propose them as endangered or threatened, but for which issuance of the proposed rule is precluded by work on higher priority species. The USFWS maintains a candidate list to: (1) provide advance knowledge of potential listings that could affect land planning decisions, (2) solicit input to identify candidates not requiring protection or additional species that may require protection under the ESA, and (3) solicit information needed to prioritize the order in which species will be proposed for listing. Candidate Category 2 species are listed as "Species of Concern" (SOC) and include those species for which further biological research and field study are needed to resolve their conservation status. Candidate species and species of concern have no legal protection under the ESA (USFWS 1996).

A total of 22 Federally listed endangered, threatened, candidate, or proposed candidate (PC) species occur or potentially occur within Presidio and Jeff Davis counties. Eleven species are listed as endangered, five are listed as threatened, one is listed as threatened due to similarity of appearance, two are listed as candidate, three are listed as proposed candidate, and the remainder are listed as species of concern. Information pertaining to the distribution, habitat requirements, and reasons for decline of the endangered, threatened, candidate, and proposed candidate species is listed in Table 3-4. Federally listed species of concern are presented in Appendix C (USFWS 1993, 1997).

3.5.3.2 Critical Habitat

Critical habitat is defined in Section 3 of the ESA as: (1) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (i) essential to the conservation of the species and (ii) that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. "Conservation" means the use of all methods and procedures needed to bring the species to the point at which listing under the Act is no longer necessary. Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR Part 424.12) require that, to the maximum extent prudent and determinable, the Secretary will designate critical habitat at the time a species is determined to be endangered or threatened. Critical habitats are not present in the project areas.

Table 3-4

Distribution, Habitat Requirements, and Reasons for Decline of Federal/State Endangered, Threatened, Candidate, and Proposed Candidate Species Potentially Occurring in Presidio and Jeff Davis Counties

Common/Scientific Name	Status Fed	Status St.	Occurrence by Counties	Habitat Requirements/Reasons for Decline	Presence of Suitable Habitat
PLANTS					
Hinkley oak *Quercus hinckleyi*	T	T	Presidio	Dry limestone slopes below 5,000 ft in desert shrub community/habitat loss and degradation from road construction, over-collection of acorns	2
Little Aguja pondweed *Potamogeten clystocarpus*	E	E	Jeff Davis	Isolated quiet pools in intermittent streams-Little Aguja Canyon drainage/degradation of water quality, reduction of available water associated with various water uses	1
Livermore sweet cicely[1] *Osmorhiza mexicana* spp. *bipatriata*		E	Jeff Davis	Wet ground around springs in high mountain canyons/unknown	1
Lloyd's hedgehog cactus *Echinocereus lloydii*	E	E	Presidio	Chihuahuan Desert, desert shrub on open gravelly, sandy slopes/habitat loss or alteration, highway construction and maintenance	3
Lloyd's mariposa cactus *Echinocereus maripoesensis*	T	T	Presidio	Chihuahuan Desert on bare alkaline, limestone soils from 2,600-3,800 ft/ habitat loss and degradation, over-collecting	1
Ojinaga ringstem *Anulocaulis reflexus*	PC		*	Gypseous shales/unknown	1
Shinner's tickle-tongue *Zanthoxylum parvum*	C		Jeff Davis	Davis Mountains at 4,000-5,000 ft/limited distribution, low numbers, collectors	1
Texas false saltgrass *Allolepsis texana*	PC		*	Alluvial soils at elevations of 3,000-5,000 ft/unknown	2
Livermore sandwort[1] *Arenaria livermorensis*		T	Jeff Davis	Igneous rock outcrops at high elevations in the Davis Mountains/unknown	1
Cylinder spike-sedge[1] *Eleocharis cylindrica*		E	Presidio	Shallow water or calcareous mud at desert springs and in streams/unknown	2
Watson's false clappia-bush *Pseudoclappia watsonii*	PC		Jeff Davis	Chihuahuan Desert shrublands on dry rocky gypseous clay hills/unknown	1
Young's snowbells[1] *Styrax youngae*		E	Jeff Davis	Canyons in the Davis Mountains/unknown	1

Table 3-4 (Cont'd)

Distribution, Habitat Requirements, and Reasons for Decline of Federal/State Endangered, Threatened, Candidate, and Proposed Candidate Species Potentially Occurring in Presidio and Jeff Davis Counties

Common/Scientific Name	Status Fed	Status St.	Occurrence by Counties	Habitat Requirements/Reasons for Decline	Presence of Suitable Habitat
FISH					
Mexican stoneroller[1] *Campostoma ornatum*		T	Presidio	Clear, fast riffles, chutes, and pools in small and medium-sized creeks with gravel or sand bottoms/introduction of exotics, dewatering	2
Prosperine shiner[1] *Cyprinella proserpina*		T	Presidio	Pools, swift channels, and riffles of clear streams, sometimes larger rivers/water development, limited distribution	2
Chihuahua shiner[1] *Notropis chihuahua*		T	Presidio	Cool, clear streams in pools with slow current, or riffles over gravel with vegetation/dewatering, exotic species introduction	2
Comanche Springs pupfish *Cyprinodon elegans*	E	E	Jeff Davis	Springs, streams, irrigation canals, ditches/habitat loss due to groundwater pumping, irrigation, channelization, hybridization with non-native species	2
Pecos gambusia *Gambusia nobilis*	E	E	Jeff Davis	Stenothermal, clear waters in small shallow springs with abundant vegetation/habitat loss due to groundwater pumping, competition with non-native exotic species	1
Blue sucker[1] *Cycleptus elongatus*		T	Presidio	Large rivers/reservoir construction, pollution, siltation	2
Rio Grande chub *Gila pandora*		T	Jeff Davis	Mountain streams/limited range, dewatering	1
Conchos pupfish[1] *Cyprinodon eximus*		T	Presidio	Sloughs, backwaters, and margins of larger streams/small populations, declining spring flow, hybridization	2
REPTILES					
Reticulated gecko *Coleonyx reticulatus*		T	Presidio	Xeric, low elevations on rocky Chihuahuan desert scrub communities/heavy collecting, pesticides	3
Chihuahuan mud turtle[1] *Kinosternon hirtipes murrayi*		E	Presidio	Streams and spring-fed stock tanks, Alamito Creek drainage, Presidio County/habitat alteration (dewatering, pollution)	2
Big Bend blackhead snake *Tantilla rubra*		T	*	Unknown, partially fossorial/rarity, lack of information	3
Texas lyre snake *Trimorphodon bicustatus vilkinsoni*		T	*	Rocky desert scrublands, pinyon and juniper woodlands, open creosotebush flats/over-collecting	2
Texas horned lizard[1]		T	*	Open, flat terrain, bare ground/pesticides, commercial	2

Table 3-4 (Cont'd)

Distribution, Habitat Requirements, and Reasons for Decline of Federal/State Endangered, Threatened, Candidate, and Proposed Candidate Species Potentially Occurring in Presidio and Jeff Davis Counties

Common/Scientific Name	Status Fed	Status St.	Occurrence by Counties	Habitat Requirements/Reasons for Decline	Presence of Suitable Habitat
Phrynosoma cornutum				exploitation	
REPTILES (Cont'd)					
Mountain short-horned lizard *Phrynosoma douglassii hernandesi*		T	*	Pine, pine-oak woodlands/restricted range, land use change	1
BIRDS					
Bald eagle[+] *Haliaeetus leucocephalus*	T	E	Jeff Davis	Lakes, rivers, reservoirs, and riparian habitat/pesticides, shooting	2
Zone-tailed hawk *Buteo albonatus*		T	*	Nests along wooded streams, desert canyons, wooded hills/loss of riparian habitat	2
Northern gray hawk *Buteo nitidus maximus*		T	*	Wooded river valleys, semi-arid and scrub grasslands/habitat destruction	2
Piping plover[+] *Charadrius melodus*	T	T	*	Beaches, sand bars, shores/habitat disturbances due to commercial, residential, and recreational development and dune stabilization	1
Common black hawk *Buteogallus anthracinus*		T	*	Nests along wooded streams/loss of riparian habitat	2
American peregrine falcon[+] *Falco peregrinus anatum*	E	E	*	Canyons with steep rocky cliffs, close to water/loss of breeding habitat, pesticides	2
Northern aplomado falcon *Falco femoralis septentrionalis*	E	E	*	Yucca grasslands, rangelands, savannas/habitat loss	1
Mountain plover *Charadrius montanus*	C		Jeff Davis	Semidesert grassland/loss of habitat	2
White-faced ibis[1,+] *Plegadis chihi*		T	*	Marshes and rice fields for foraging/pesticides	1
American swallow-tailed kite *Elanoides forticatus*		T	*	Wetland savannas/habitat modification and loss	1
Wood stork *Mycteria americana*		T	Presidio	Marshes, swamps, ponds/habitat loss, altered hydrology	1
Interior least tern[+] *Sterna antillarum athalassos*	E	E	Jeff Davis	Sparsely vegetated sandbars along shallow rivers, salt flats, and barren shores/habitat alteration or loss, pollution	1
Mexican spotted owl	T	T	Jeff Davis	Wooded canyons and mountains/habitat loss from logging	1

Table 3-4 (Cont'd)

Distribution, Habitat Requirements, and Reasons for Decline of Federal/State Endangered, Threatened, Candidate, and Proposed Candidate Species Potentially Occurring in Presidio and Jeff Davis Counties

Common/Scientific Name	Status Fed	Status St.	Occurrence by Counties	Habitat Requirements/Reasons for Decline	Presence of Suitable Habitat
Strix occidentalis lucida					
BIRDS (Cont'd)					
Southwestern willow flycatcher *Epidonax trailii extimus*	E		*	Mesquite, willows, cottonwoods, and salt cedars in riparian habitats/loss of arid riparian habitat, brood parasitism	2
Arctic peregrine falcon+ *Falco peregrinus tundrius*	TSA	T	*	Nests on cliffs and buildings/pesticides	2
Whooping crane+ *Grus americana*	E	E	*	Wilderness wetlands/diminished habitat, human disturbance	1
Black-capped vireo *Vireo atricapillus*	E	E	Jeff Davis	Steep canyons with xeric shrubs/habitat loss, brood parasitism, brush clearing, browsing by herbivores	2
MAMMALS					
Mexican long-nosed bat *Leptonycteris nivalis*	E	E	Presidio	High desert scrub vegetation with century plants, mesquite creosotebush, and cacti/roosting site (entrances of caves and mine tunnels) disturbances	3
Black bear *Ursus americanus*		E	Jeff Davis	Mountains, broken country, woods, brushlands, forests/habitat destruction, predator control, subsistence hunting	1
Spotted bat *Euderma maculatum*		T	*	Desert scrub to ponderosa pine, broken canyons and cliffs/limited data on population	3

[1] Also listed as Federal Species of Concern
* Occurs in both counties
\+ Migratory species

E = Endangered
T = Threatened
C = Candidate
PC = Proposed Candidate
St. = State
Fed. = Federal
ft = feet
TSA = Threatened due to Similarity of Appearance
1 = Not observed within or adjacent to proposed project corridor
2 = Limited habitat is available within or adjacent to proposed project corridor
3 = Generally observed throughout the proposed project corridor

Source: Correll and Johnston 1979; Campbell 1995; TOES 1993, 1995; TPWD 1993, 1995; USFWS 1993, 1997

3.5.3.3 State

The Texas Parks and Wildlife Department (TPWD), Natural Heritage Program, maintains computerized records of state-listed threatened and endangered species by county. The State of Texas does not list threatened and endangered (T & E) species the same as the Federal government. When the USFWS lists a plant species, the State of Texas then lists that plant. Thus, the list of T & E plants in Texas is the same as the Federal list. The state has separate laws governing the listing of animal species as threatened or endangered. T & E species in Texas are those species so designated as either threatened or endangered according to Chapters 67 and 68 of the Texas Parks and Wildlife Code and Section 65.171 - 65.184 of Title 31 of the Texas Administrative Code. Animals that are not currently listed by the Federal government may be listed as threatened or endangered by the state. The state does not have the authority at this time to list invertebrates. The state lists 16 endangered species and 24 threatened species as occurring or potentially occurring in Presidio and/or Jeff Davis counties (see Table 3-4) (TPWD 1993, 1995).

3.5.3.4 Unique or Sensitive Areas

A wide variety of unique or sensitive areas exist in the Trans-Pecos, Mountains, and Basins community that are important to fish and wildlife resources, including arroyos, bolsons, heucos, springs, and riparian wetlands. These areas are considered important for sustaining population sizes of some plant, fish, and wildlife species because of unique species diversity or hydrological regime. Two unique or sensitive areas within the project areas are the TPWD 2,082-ac Las Palomas WMA (Ocotillo Unit) in Presidio County and the USFWS candidate wetland site (2,000 ac) at Capote Falls and Creek (USGS Quad Map-Capote Falls). Although this candidate site has not been evaluated through the wetlands assessment threshold criteria of the National Wetlands Priority Conservation Plan, it is eligible for acquisition under the Emergency Wetland Resources Act of 1986 (P.L. 99-465) (JTF-6 1994).

3.5.3.5 Survey Results

A survey of the Sierra Vieja Repeater Road, Chispa Road, Candelaria Border Road, and FM 2810 segments for candidate, threatened, and endangered species was conducted on November 11-17, 1997 and on December 16, 1997. Surveys were conducted by four biologists walking transects through the center of a 10-m corridor on each side of the existing road to be repaired.

3.5.3.5.1 Plants

Federally listed threatened, endangered, or candidate plant species were not observed within the proposed project corridor. Limited habitat exists within the survey corridor for listed species except Lloyd's hedgehog cactus. Habitat for this species was observed throughout the proposed corridor; however, no individuals or populations were identified.

3.5.3.5.2 Animals

Federally listed threatened, endangered, or candidate animal species were not observed within the proposed project corridor. However, potential habitat for many of these species was observed during the surveys (see Table 3-4).

3.6 Noise

Noise is defined as "unwanted sound" and in the context of protecting public health and welfare implies potential effects on people and, in general, on the environment. Under certain conditions, noise may cause hearing loss, interfere with human activities at home and work, and in various ways may affect people's health and well-being. Noise may also annoy, anger, awaken, and frustrate people. Therefore, noise may combine to detract from the quality of life and/or have other effects on the environment (EPA 1978).

3.6.1 Noise Classification and Measurement

Noise is one of the major concerns associated with construction-related activities. There are three common classifications of noise: (1) general audible noise that is heard by humans; (2) special noise, such as sonic booms and artillery blasts, that can have a sound pressure or shock component; and (3) noise-induced vibration involving noise levels that can cause physical movement (e.g., vibration).

These types of noise are typically measured by three different methodologies. Audible noise is typically measured in A-weighted sound levels expressed in decibels (dBA). Special noise is usually measured in C-weighted levels expressed in decibels (dBC). Noise-induced vibration is measured in peak acceleration or root-mean-square acceleration of the structure which vibrates (National Research Council 1977).

The A-weighted sound level metric is the instantaneous measure of a single sound. The A-scale de-emphasizes the low- and high-frequency portions of the sound spectrum and provides a good approximation of the response of the average human ear. On the A-scale, 0 dBA represents the average least perceptible sound (e.g., gentle breathing), and 140 dBA represents the intensity at which the eardrum may rupture (e.g., jet engine at open throttle). Typical sound levels and the relative loudness of typical instantaneous noise sources in various environments are listed in Table 3-5. Typical single noise levels in residential and municipal areas in and around the urban community of Marfa could range above 90 decibels (dB) due to vehicular traffic, general/basic utility airlines, and major construction activities.

The day-night sound level (L_{dn}) utilizes measurements taken from the A-scale to characterize the average sound levels throughout the day and night. The metric cumulative energy average, expressed in L_{dn}, has been found to correlate well statistically with aggregate community annoyance response. The L_{dn} is widely accepted by Federal and local agencies as the primary measure for describing noise effect on communities. The L_{dn} has been shown to be an effective

Table 3-5

Sound Levels (dB) and Relative Loudness of Typical Noise Sources in Indoor and Outdoor Environments

dB(A)	Overall Level	Community Noise Levels (Outdoor)	Home and Industry Noise Levels (Indoor)	Subjective Loudness (Relative to 70 dB)
120	Uncomfortably loud	Military jet aircraft takeoff with afterburner from aircraft carrier at 50 ft (130)	Oxygen torch (121)	32 times as loud
110		Turbo-fan aircraft at takeoff power at 200 ft (118)	Riveting machine (110) Rock band (108-114)	16 times as loud
100	Very loud	Boeing 707 DC-8 at 6080 ft before landing (106) Jet flyover at 1000 ft (103) Bell J-2A helicopter at 100 ft (100)		8 times as loud
90		Boeing 737 DC-9 at 6080 ft before landing (97) Power mower (96) Motorcycle at 25 ft (90)	Newspaper press (97)	4 times as loud
80		Car wash at 20 ft (89) Prop plane flyover at 1000 ft (88) Diesel truck 40 mph at 50 ft (85) Diesel train 45 mph at 100 ft (83)	Food blender (88) Milling machine (85) Garbage disposal (80)	2 times as loud
70	Moderately loud	High urban ambient sound (80) Passenger car 65 mph at 25 ft (77) Freeway at 50 ft from pavement edge at 10 a.m. (76)	Living room music (76) TV-audio, vacuum cleaner (70)	70 dB(A)
60		Air conditioning unit at 100 ft (60)	Cash register at 10 ft (65-70) Electric typewriter at 10 ft (64) Dishwasher (rinse) at 10 ft (60) Conversation (60)	1/2 as loud
50	Quiet	Large transformers at 100 ft (50)		1/4 as loud
40		Bird calls (44) Lowest limit urban ambient sound (40)		
		dB Scale Interrupted		
10	Just audible			
0	Threshold of hearing			

dB = decibels
dB(A) = decibels on the A-weighted scale
a.m. = ante meridian (before noon)
ft = feet
mph = miles per hour
Source: Wyle Research Corporation 1992

tool for noise impact analysis for over 15 years and is the noise assessment metric endorsed by the Federal Interagency Committee on Urban Noise (comprised of representatives from the EPA, DOD, Department of Housing and Urban Development, Department of Transportation, and Veterans Administration), the National Academy of Sciences, the American National Standards Institute, the Federal Aviation Administration, the Acoustical Society of America, and the Federal government. The L_{dn} is a 24-hour average sound level measurement. Nighttime emissions are weighted with a 10 dB penalty to account for increased community annoyance between the hours of 2200 and 0700. Rural areas associated with the Sierra Vieja Repeater, Chispa, and Candelaria Border roads are currently anticipated to have L_{dn} noise levels ranging from 39 to 44 dB (Figure 3-5). Sound levels on FM 2810 would range from 35 to 70 dB (see Figure 3-5).

3.6.2 Environmental Compliance

The Noise Control Act of 1972 (P.L. 92-574) directed the EPA to publish scientific information about the kind and extent of all identifiable effects of different qualities and quantities of noise. Congress also directed the EPA to define acceptable noise levels under various conditions which would protect public health and welfare with an adequate margin of safety. Federal agencies and members of the scientific community collaborated to publish a document (i.e., Levels Document) which completed this legal requirement (EPA 1978). Yearly L_{dn} values to protect public health and welfare are listed in Table 3-6.

Table 3-6

Yearly L_{dn} Values that Protect Public Health and Welfare with a Margin of Safety

Effect	Level	Area
Hearing	$L_{eq}(24) \leq 70$ dB	All areas (at the ear).
Outdoor Activity interference and annoyance	$L_{dn} \leq 55$ dB	Outdoors in residential area/L_{eq} farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis of use.
	$L_{eq}(24) \leq 55$ dB	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor Activity interference and annoyance	$L_{dn} \leq 45$ dB	Indoor residential area.
	$L_{eq}(24) \leq 45$ dB	Other indoor areas with human activities such as schools, etc.

L_{dn} = Day-night average noise level L_{eq} = Equivalent sound level dB = decibels
Source: EPA 1978

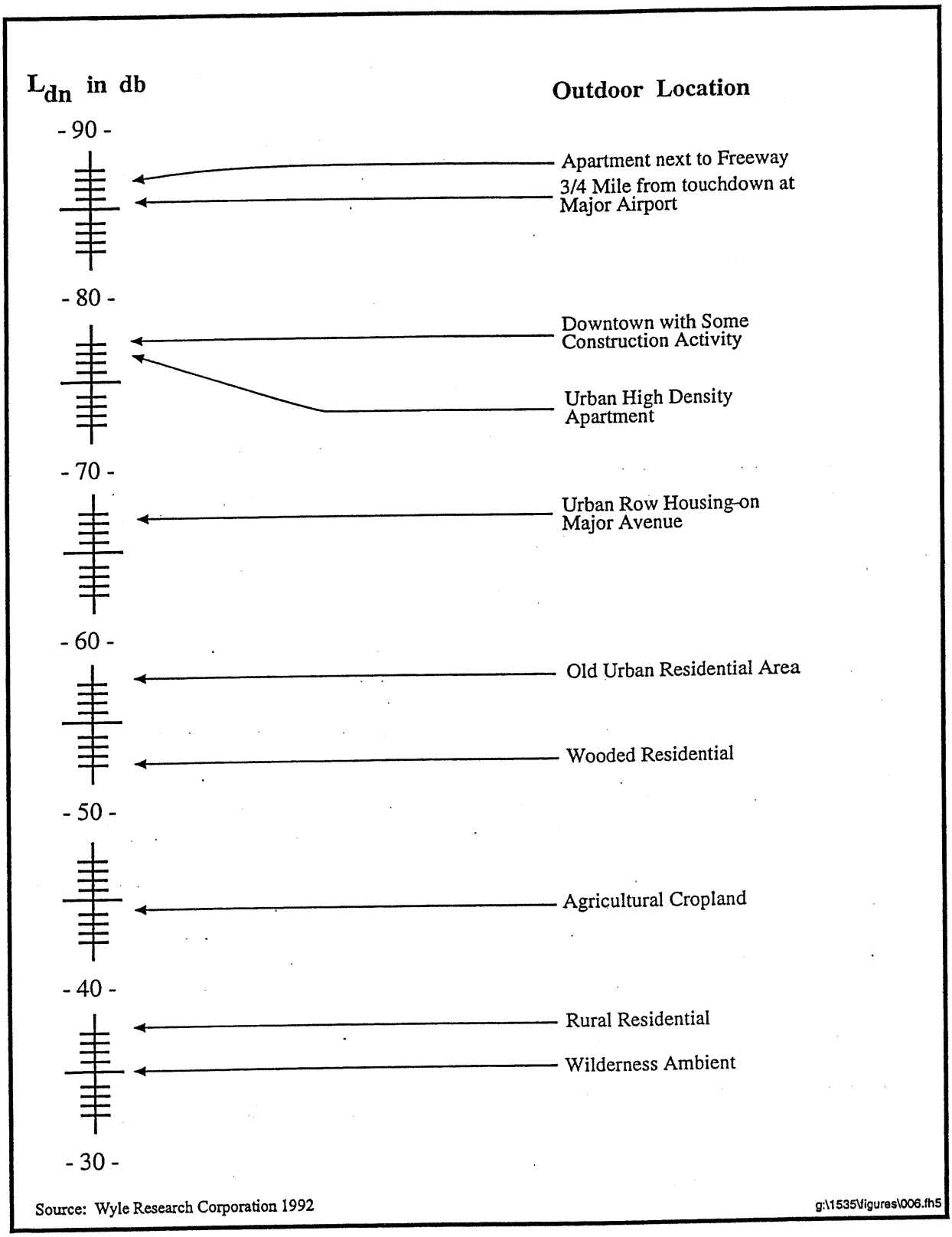

Figure 3-5. Typical Average Day-Night Noise Levels for Various Outdoor Environments.

3.7 Socioeconomics

The region of influence (ROI) for the proposed construction and road improvement activities includes Presidio and Jeff Davis counties in West Texas.

3.7.1 Population

Total population of the ROI in 1996 was 9,957, which represents an annual growth rate of 2.5 percent over the 1990 population of 8,583. Presidio County has the largest population of the ROI counties with 7,857 persons, followed by Jeff Davis County with 2,100 persons (Table 3-7). The ROI population is distributed 75 percent Hispanic and 24 percent white, while the remaining one percent are of different ethnic backgrounds. The largest city in the ROI is Presidio with an estimated population of 3,072 in 1990. Other cities in the ROI include Marfa in Presidio County and Valentine in Jeff Davis County. The ROI is rural with a population density of two persons per square mile (mi^2).

Table 3-7

ROI County Demographic Information (1996)

		Land Area	Density	Ethnic Distribution			
County	Population	(mi^2)	(per mi^2)	White	Black	Hispanic	Other
Jeff Davis	2,100	2,265	1	1,209	6	870	15
Presidio	7,857	3,856	2	1,208	2	6,628	19
Total	9,957	6,121	2	2,417	8	7,498	34

mi^2 = square mile
Source: U.S. Department of Commerce 1994; Texas State Data Center 1996

3.7.2 Employment and Income

Total employment for the ROI in 1995 was 3,173, which represents an annual growth rate of 0.3 percent over total employment in 1990 (Table 3-8). Employment in the ROI is concentrated in the government, service, and retail trade sectors, representing 66.8 percent of total employment in 1995. The largest employment sector is the government which accounts for 29.0 percent of the total. Compared to national figures, the government sector in the ROI is larger than the national share of 14.5 percent, while the percentage of persons in the manufacturing industry in the ROI is significantly less than the national average.

The ROI unemployment rate in 1995 was 30.0 percent, significantly higher than the State of Texas rate of 6.0 percent and the national average of 5.6 percent (Table 3-9). Presidio County had the highest unemployment rate in the ROI (37.9 percent) and was the highest in the State of Texas in 1995. Total personal income for the ROI in 1995 was $106.6 million. The leading sectors for income are the same as those of employment. Government, services, and retail trade produce 75.6 percent of the income in the region. The government sector is the largest income

Table 3-8

Full-Time and Part-Time Employment by Industry in the ROI (1995)*

Industry	1990	1995	Percent of Total (1995)	Annual Percent Change (1990-95)
Farm employment	**494**	**489**	**15.4**	**-0.2**
Nonfarm employment	**2,632**	**2,684**	**84.6**	**0.4**
Private employment	**1,820**	**1,764**	**55.6**	**-0.6**
Agricultural Services, forestry, fisheries and other	146	164	5.2	2.4
Mining	5	7	0.1	7.0
Construction	139	85	2.7	-9.4
Manufacturing	19	30	0.9	9.6
Transportation and public utilities	108	95	3.0	-2.5
Wholesale trade	26	22	0.7	-3.3
Retail trade	494	478	15.1	-0.7
Finance, insurance, and real estate	174	164	5.2	-1.2
Services	709	719	22.7	0.3
Government	**812**	**920**	**29.0**	**2.5**
Federal, civilian	183	168	5.3	-1.7
Military	32	29	0.9	-1.9
State and local	597	723	22.8	3.9
Total	3,126	3,173	100.0	0.3

*Subtotals denoted in **BOLD** print.

Source: U.S. Department of Commerce 1994, 1997a

sector, accounting for 46.5 percent of income. The government sector is also the fastest growing major income and employment sector with annual growth rates of 2.1 percent for income and 2.5 percent for employment from 1990 to 1995. Specifically, the state and local sector of government is expanding rapidly in the ROI. Per capita personal income was $10,803 in 1995 which was significantly lower than the national average of $23,196 (U.S. Department of Commerce 1997b).

Table 3-9

Employment and Unemployment in the ROI (1995)

County	Employed	Unemployed	Unemployment Rate
Jeff Davis	1,059	41	3.7%
Presidio	2,253	1,377	37.9%
Total	3,312	1,418	30.0%

Source: Texas Workforce Commission 1997

3.7.3 Housing

The total number of housing units in the ROI in 1990 was 4,238. Of this total, 3,034 were occupied and 1,204 were vacant (a vacancy rate of 28.4 percent). The median value of a housing unit in the ROI was $33,162; the median rent was $294 (Federal Register 1990). These median values are significantly lower than the state and national figures.

3.7.4 Environmental Justice

Executive Order 12898 of 11 February 1994, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,* provides that each Federal agency shall identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations in the United States. Within the ROI counties are certain areas with concentrations of minority populations and below average income levels. However, the project sites are located in sparsely populated areas with varying degrees of demographic and economic characteristics.

3.8 Transportation

The highway system within the project areas is not extensively developed but adequate for this sparsely populated area (see Figure 2-1). The region is served by U.S. Highway 90 which runs from Van Horn to Marfa, State Highway 17 which runs from Fort Davis to Marfa, and U.S. Highway 67 which runs from Marfa to Presidio. These highways are the vital link to areas northwest, north, and south of the region and provide access to the project areas, as well as FMs 2017, 2810, and 170. U.S. Highway 67 provides access to the port of entry at Presidio/Ojinaga. Numerous unpaved secondary roads cross the region. In addition, a large system of dirt roads and jeep trails in various conditions occur along the border (JTF-6 1994).

The Union Pacific Railroad operates north of the study area at Marfa. Passenger service is not available in the study area. The Marfa Municipal Airport, located north of Marfa, is a

general/basic utility airport for single- and multi-engine piston-powered aircraft. Military airfields are not present in the project area (JTF-6 1994; Ramos 1997).

3.9 Hazardous Waste

3.9.1 Federal

Regulatory database searches at the Federal level were supplied by Environmental Risk Information & Imaging Services (ERIIS) (Appendix D). Database selection followed the standard guidelines developed by the American Society for Testing and Materials (ASTM) in Document E 1527-97, *Phase I Environmental Site Assessment Process*; distances of possible adverse influence also followed the ASTM guidelines listed below. The following databases and minimum search distances were researched:

Federal Database	Distance (mi)
National Priority List (NPL)	1.0
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	0.5
Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and Disposal (TSD) facilities	1.0
RCRA generators	site & adjacent
Emergency Response Notification System (ERNS)	site only

There were no facilities or events identified on the NPL, CERCLIS, RCRA TSD facilities, or ERNS databases for the entire project corridor within the specified search distances (see Appendix D).

3.9.2 State

Regulatory database searches at the state level were also supplied by ERIIS with database selection and distance also following the standard guidelines developed by the ASTM E 1527-97; distances of possible adverse influence also followed the ASTM guidelines. The following databases and minimum search distances were researched:

State Database	Distance (mi)
Texas Superfund List	1.0
Texas Solid Waste Disposal Facilities	0.5
Texas Registered Petroleum Storage Tank (RST)	site & adjacent
Texas Leaking Petroleum Storage Tank (LRST)	0.5

There are no facilities listed on the Texas Superfund List within 1.0 mi of the project corridor. No facilities were listed on the Texas Solid Waste Disposal Facilities, RST, and LRST databases within 0.5 mi of the project corridor (see Appendix D).

3.10 Cultural Resources

Between November 10 and December 10, 1997, a cultural resources inventory survey was conducted along the project corridor. The cultural resources investigation was undertaken in order to locate any cultural properties that would potentially be impacted by the proposed project. A total of 27 new archeological sites and 42 isolated occurrences was identified as a result of the survey. Sixteen sites are recommended as potentially eligible for inclusion on the National Register of Historic Places (NRHP).

3.10.1 Cultural Overview

The project area lies within what is generally referred to as the Trans-Pecos region of Texas. This region is bound on the north by the Texas-New Mexico state line, on the east by the Pecos River, and on the west and south by the Rio Grande. Three cultural subregions have been defined within the Trans-Pecos region (Hicks 1989) on the basis of prehistoric material remains implicit to adaptive subsistence strategies.

Because the eastern one-third of the Trans-Pecos consists of grasslands that are actually part of the Great Plains (Hicks 1989), this portion of the region has become known as the "Plains subregion." The "Puebloan subregion" in the northwestern Trans-Pecos covers an area from the Texas-New Mexico state line south along the Rio Grande to near Presidio, Texas, and east to the Quitman and Hueco mountains. The "Interior subregion," which encompasses the project areas, extends eastward from the Rio Grande to the plains south of Presidio. Mallouf (1985) refers to the region as the Eastern Trans-Pecos and subdivides the area into Northern, Central, and Southern sectors, without explanation. Although this definition of the "Eastern Trans-Pecos" may extend farther to the east than that of the Interior subregion, usage of the later terminology excludes the plains on the eastern extremes of the Trans-Pecos.

The Interior subregion of the Trans-Pecos is generally defined by a culturally adaptive strategy centered on hunting and gathering with an emphasis on succulent processing. To the west of the Interior subregion, in the Puebloan subregion, ceramic-producing prehistoric farmers have left visages of a much different material culture, and to the east yet another set of "cultural footprints" have been left by plains-oriented nomads.

In keeping with a focus on the project area, discussion of the prehistoric sequence is centered on the Interior and Puebloan subregions, or western Trans-Pecos. The prehistory of the study area is based on the general chronological framework of the Trans-Pecos region and is broken down into five temporal periods (Table 3-10) (Winchell et al. 1992). These periods are principally defined by the presence of diagnostic projectile points, though intended to represent more generalized developmental stages. However, this chronological framework is cursory and few supporting data beyond diagnostic artifacts are available for any given period. Temporality of diagnostic projectile points has generally been derived from excavated cave and rockshelter stratigraphic contexts. Radiometric dating of any one period has also proven tenuous at best. Of 51 published radiocarbon dates from the Trans-Pecos area, only five appear to date prior to 2000 B.C., and a scant few were associated with diagnostic artifacts (Mallouf 1985).

Table 3-10

Prehistoric Periods for the Trans-Pecos Region

Temporal Period	Approximate Dates
Paleo-Indian	10,000 B.C. - 6500 B.C.
Early Archaic	6500 B.C. - 3000 B.C.
Middle Archaic	3000 B.C. - 500 B.C.
Late Archaic	500 B.C. - A.D. 1000
Late Prehistoric	A.D. 1000 - A.D. 1600

3.10.1.1 Prehistoric

3.10.1.1.1 Paleo-Indian Period

The majority of known Paleo-Indian materials found near the current study area are from Guadalupe National Park to the north and Big Bend National Park to the south. Both of these areas, being national parks, have received relatively intensive study efforts. "With the exception of a major cluster of sites in the vicinity of Van Horn, Texas, and isolated projectile point finds in the northern Baylor and southern Davis Mountains, Paleo-Indian occupation of the central portion of the Interior subregion remains unknown" (Hicks 1989).

The 3,500-year span of the Paleo-Indian period in the Trans-Pecos has been divided into two basic subperiods. The earlier subperiod is identified with the Clovis population, based on diagnostic material recovered from the type site at Clovis, New Mexico. The known occurrences of Clovis materials in the general area are limited to one reported Clovis point from Big Bend National Park and one from near Van Horn (Hicks 1989). In addition to these Clovis points, probable Clovis materials have recently been reported near Van Horn (Ing et al. 1996).

The Late Paleo-Indian period, however, is much better represented within the project area. The presence of these later peoples is based on diagnostic projectile point styles such as the Folsom, Plainview, Golondrina, Angostura, Meserve, Midland, and other lanceolate forms. Although most of these point styles have been found throughout the Interior subregion, "folsom materials tend to be confined to the northern half of the [Interior] area" (Hicks 1989). The Chispa site located south of Van Horn has reportedly produced over 100 Folsom points, providing firm indication of late Paleo-Indian activity near the present study (Ing et al. 1996).

Though generally accepted as a big-game hunting subsistence period across the greater southwest, Mallouf (1985) has suggested that during the Late Paleo-Indian period, a broad-based, localized hunting and gathering subsistence economy may be represented in the western Trans-Pecos. The location of Late Paleo-Indian sites in a variety of elevational/topographical settings, from high altitude alluvial terraces to basin floor playa edges, supports this contention.

3.10.1.1.2 Archaic Period

Toward the end of the Pleistocene, the climate became increasingly drier and warmer. With the environmental shift, the faunal and floral resources that had been the mainstay of the Paleo-Indian populations would also have undergone massive changes. The Archaic populations in the western Trans-Pecos are essentially defined by technological modifications to the projectile point assemblages. Likely these modifications reflect adaptive responses to a changing environmental situation.

3.10.1.1.2.1 Early Archaic Period

During the transition period to a drier climate, noticeable technological changes include the production of stemmed and either corner- or side-notched projectile points in addition to the lanceolate points indicative of the prior Paleo-Indian period. Several of these lanceolate forms such as Meserve and Lerma are considered by some to represent transitional or Early Archaic projectile point types and often exhibit basal grinding (Winchell et al. 1992). The diagnostic styles representing a slightly later time period are characterized by stemmed and notched bases and include, among others, Martindale, Baker/Uvalde, Nolan, Bulverde, and Pandale (Hicks 1989).

Though a lack of securely dated, stratified deposits has severely limited archeological interpretation of the Early Archaic period, a general shift in subsistence strategy from the preceding Paleo-Indian period is expressed. That a broad-based hunting and gathering economy adjusted to exploit the continually expanding desert biota is suggested by hearth fields and burned rock middens (accumulations of burned rock with associated stains) in low altitude settings.

Sites attributed to this period are relatively rare, with the majority of those on record located in Big Bend National Park. Materials excavated from two sites south of Alpine, Texas, may be affiliated with the Early Archaic period, but presently these are not beyond question. Open camp sites dating to this period have been reported along canyons in the Davis Mountains, but are totally lacking near Van Horn (Hicks 1989). Unfortunately, limited data and deposition/superimposition problems obscure conclusive settlement pattern indications.

3.10.1.1.2.2 Middle Archaic Period

The Middle Archaic period in the study area is basically defined by the presence of large, stemmed, corner- or side-notched projectile point types as well as some basal-notched forms. Examples of the Middle Archaic projectile point styles include Langtry, Val Verde, Castroville, Montell, Lange, Conejo, Almagre, Williams, Shumla, and Marcos (Hicks 1989).

This period represents a continuation of the broad-based hunting and gathering lifestyle of the general Archaic (Winchell et al. 1992). Processing of desert succulent plants is suggested by the association of burned rock features and Middle Archaic assemblages, not unlike the preceding period. Slightly higher populations are indicated during the Middle Archaic, as suggested by the

increased use of rockshelters (Hicks 1989). Sites occur over a broader range of environmental settings during this period and a "fairly consistent patterning of sites" may indicate increased social organization (Mallouf 1985).

3.10.1.1.2.3 Late Archaic Period

Though the Late Archaic period had an economical base similar to earlier periods, population increases and reuse of sites is apparent. Site frequency during this period is evidently substantially higher than preceding periods and the presence of deeper burned rock feature deposits is taken to represent multi-usage. "In general, Late Archaic site density is higher in all areas of the western Trans-Pecos than during previous periods. Sites are now found in all environmental niches, and there are indications that some represent repeated and/or prolonged use" (Hicks 1989). In some portions of the area, incipient horticulture may have become part of the subsistence regime, but supporting evidence is limited.

Technological changes that help define the Late Archaic period are noted by the presence of smaller, side- and corner-notched points, as well as some bifurcated forms. These diagnostic styles include the Figeroa, Ellis, Darl, Edgewood, Frio, Paisano, Palmillas, and Ensor.

3.10.1.1.3 Late Prehistoric Period

Within much of the Trans-Pecos, developments are lacking that traditionally have been applied to the actual Formative period in areas farther to the west. The term generally used instead is the "Late Prehistoric" (or Neo-American) and spans the time frame from ca A.D. 1000 to 1500 or later. This term encompasses the developments that in other areas have been included within the Protohistoric (Hicks 1989). In the Puebloan subregion of extreme western Trans-Pecos, this period may be considered analogous to the Formative period of the Jornada Mogollon culture area of southern New Mexico and northern Chihuahua.

The appearance of the bow and arrow, and in the Puebloan subregion, ceramics and agriculture, signifies technological advances that mark this cultural period (Mallouf 1985). Arrow points associated with the Late Prehistoric period include Clifton, Toyah, Scallorn, Perdiz, Livermore, Harrel, and Fresno types. Ceramics typical of the Mogollon culture area occur throughout the Puebloan subregion, but seem to be focused primarily within the northern reaches of the Interior subregion, predominantly associated with locations of arable soils (Winchell et al. 1992). The majority of the Interior subregion, however, exhibits evidence of the Archaic-style hunting and foraging activities that were little changed by technological advances nearby.

Site locations persist in all environmental zones, hearths continue to be common site features, and ring middens (circular accumulations of burned rock representing large roasting ovens) become frequent. More complex social and ceremonial systems are suggested by stylized rock art, the use of geographic features such as shrines, prepared burials, and ceremonial artifacts such as prayer sticks and elaborate rattles (Mallouf 1985). Excavations at Carved Rock Shelter near Alpine produced cobs of maize, tentatively associated with horticultural practices. Such farming endeavors would most likely be limited to springs and ciénegas along the mountain foothills in

the Interior subregion, and in that area, it is generally agreed that "horticultural products never figured significantly in the economy" (Hicks 1989).

Farming practices in the Puebloan subregion, however, are expected to have constituted a more substantial economic factor. The Rio Grande and Rio Conchas (along with a few associated tributaries) provided suitable setting for agricultural pursuits. The confluence of these major rivers, known as the La Junta de los Rios (junction of the rivers) area, apparently became the focus of prehistoric farmers who ultimately constructed adobe pueblos. This "cluster" of Puebloan peoples has been defined as the Bravo Valley Aspect and includes the La Junta, Concepcion, and Conchos phases (Kelley 1985). While the latter phases of the Bravo Valley Aspect continue into historic times, the primary phase is prehistoric. For the sake of congruency in discussion of this developmental sequence, the Bravo Valley Aspect is included in its entirety, in the Late Prehistoric period section.

The La Junta phase (A.D. 1200-1400) comprises the only portion of the Bravo Valley Aspect wholly attributable to the prehistoric period. Structural types include several forms constructed in pits during the La Junta phase, somewhat inhibiting temporal assignment of these sites based on architecture alone. The ceramic assemblage associated with the La Junta phase remains, however, forms a reliable basis for temporal assignment. Ceramic types typically include El Paso Polychrome and El Paso brownware (most likely undecorated portions of polychrome vessels), and Chupadero Black-on-white, as well as decorated Chihuahuan wares such as Playas Red, Playas Red Incised, Villa Ahumada Polychrome, Babicora Polychrome, Madera Black-on-red, Ramos Black, and others not specifically identified (Kelley 1985). The La Junta phase is considered directly linked to the El Paso phase of the Jornada Mogollon Culture, and is generally presumed to represent a migration of those cultural traits (or peoples) southward along the Rio Grande. It should be noted, however, that the Jornada Culture region is not well defined in northern Mexico, and that the movement of peoples eastward from northern Chihuahua should also be considered when tracing origins of the Bravo Valley Aspect.

The Concepcion phase (A.D. 1400-1700) continues after European contact, providing for Protohistoric period temporal affiliation. Architectural styles change slightly during this phase, but the documented changes may not constitute reliable indicators of specific temporal affiliation (Kelley 1985). Ceramic assemblages do change dramatically during the Concepcion phase, most notably through the absence of El Paso Polychrome (Johnson et al. 1977). While the list of ceramics associated with this phase has not been well defined, Chinati Plain and its variants Chinati Neck-filleted and Chinati Scored, Capote Red-on-brown, and Paloma Red-on-gray are represented. The concoidal-bottomed Chinati wares have been described as reminiscent of Apachean and Navajo ceramics, which may suggest manufacture by the Jumano (Kelley 1985). The Jumano were described by the Spanish as hunters-gatherers who wintered at La Junta alongside the Puebloan agriculturists. The Jumanos are generally considered to represent Plains nomads, persisting in Archaic-style subsistence practices while trading and interacting with more sedentary groups. After about A.D. 1700, the use of the term Jumano is discontinued, and the local nomadic peoples are referred to as Apaches (Kelley 1985). All of the aboriginal peoples in the La Junta area were initially referred to as Patarabueyes by early Spanish explorers. Through time, this designation was evidently dropped in favor of the term Jumanos. After initial Spanish

contact in 1580, artifacts of European origin such as glass and metal begin to appear on Concepcion phase sites.

The Conchos phase (A.D. 1700-1800) is predominately defined by the presence of Mexican Maiolica, fragments of Spanish olive jars, local glazeware, white slipped examples of Conchos Plain, and other ceramics bearing evidence of wheel manufacture. Architecturally, house types appear to be relatively similar to those of preceding phases, but, for the first time, structures are built completely above-ground.

3.10.1.2 Historic

The Historic period in the Trans-Pecos began with European contact in the sixteenth century. Cabeza de Vaca is credited with being the first Spaniard in the Trans-Pecos, when, after having been shipwrecked on the Gulf of Mexico coast and held captive by native inhabitants, he escaped and wandered through the Trans-Pecos area in 1535 (Hicks 1989). Subsequently, the formal expeditions of Rodriguez Chamuscado (1581), Espejo (1582), and Oñate (1598) followed several decades later, with Oñate's founding of Santa Fe marking the inception of colonization. By 1659, the first Trans-Pecos outpost and mission had been established in the El Paso area (Beckett and Corbett 1992). Indigenous peoples encountered in the Trans-Pecos area included agriculturists designated by the Spanish as the Patarabueyes as well as nomadic bison hunters, later referred to as the Jumano. Both groups were reported in the area of the Rio Grande/Rio Concho confluence near present-day La Junta or Presidio, Texas.

Although plans for a series of Spanish presidios had first been suggested in 1667, none were established until 1729 when isolated settlements along the Spanish frontier were subjected to continuing raids by Apache and Comanche bands. The first attempted presidio along the Rio Grande, however, soon failed. Following the Pueblo Revolt of 1680, Spanish and sympathetic Pueblo Indians had retreated southward, which eventually led to the establishment of numerous missions in the El Paso area (Beckett and Corbett 1992). It was not until 1738 that presidios were successfully established along the Rio Grande south of the El Paso missions, the first being located some 30 mi south of present-day Del Rio. In 1759, another presidio was constructed in the present-day La Junta region, but reportedly failed to curtail the Apache depredations in the area. Attempts to establish presidios and ongoing campaigns against the Apache continued until 1791, when a peace treaty was signed. Unfortunately, southward pressure by the Comanches shortly thereafter led to encroachment on Apache territories, thus rekindling friction and forcing the withdrawal of the Spanish from the Big Bend area (Hicks 1989). Meanwhile, along the Rio Grande, villages inhabited by the so-called Patarabueyes were being abandoned (Rile 1987). Undoubtedly, some of these peoples settled within the protective sphere of Spanish presidios (Beckett and Corbett 1992). It is not unlikely that others abandoned village life to return to a more nomadic subsistence, removed from the focus of raiding parties.

Uncertainties surrounding these aboriginal groups plague archeological interpretations. It has been suggested that the Jumano were Apachean, or Athapaskan speakers (Kelley 1952a; Riley 1987). Other researchers have argued that this historic period group may have been derived from the northern Rio Grande pueblos (Whalen 1977) and were part of the Uto-Aztecan linguistic

group. Regardless of their cultural affiliation, which remains to be proven, both agricultural and nonagricultural peoples, other than the Apaches, were present both prior to and during the Spanish exploration period and their activity/habitational site characteristics have not been identified.

It was not until after 1846 that Anglo-Americans substantially settled the Trans-Pecos. At that time, border and frontier defenses of the newly acquired State of Texas came under the administration of the United States (Bandy 1980). Construction of a series of military forts followed, which provided ample protection for the establishment and use of the Chihuahuan trail, a commerce and information artery that linked Trans-Pecos and western Texas to Chihuahua, Mexico. By the 1880s, the Indian menace was under control and railroad construction was rapidly paving the way for an influx of settlers and supplies across the Trans-Pecos (Kennard 1973). Other developments during the nineteenth century that shaped the economic development of the region included the introduction of Hereford cattle breeding and barbed wire, the installation of water wells and irrigation technology, and finally, the development of the mining industry. Today, cattle and sheep ranching constitute one of the major sources of livelihood in the project area. The railroad, limited farming, tourism surrounding Big Bend National Park, and USBP activities continue to support Texas towns such as Candelaria, Marfa, Alpine, and Van Horn.

3.10.2 Previous Cultural Resources Investigations

Studies in the prehistory of the Trans-Pecos have been sporadic over the last 50 years with the exception of archeological surveys in Big Bend National Park, reconnaissance on the Big Bend Ranch State Park (Ing et al. 1996), and the recent investigations at Amistad Reservoir downriver from the park (James Mayberry, personal communication 1997). Recent research in the project area has been limited to a few small-scale surveys and an extensive reconnaissance project conducted in 1976 (Johnson et al. 1977). During the 1800s, archeological interests were sparked by two reported discoveries. J. Russell Bartlett first described the rock art at Hueco Tanks in an 1854 publication (Lehmer 1958), and in 1895 a cache of 1,200 nearly identical arrow points was discovered on the summit of Mount Livermore in the Davis Mountains (Janes 1930). It was not until the 1920s that the pioneering efforts of V. J. Smith, E. B. Sayles, and E. F. Coffin brought a scientific approach to the study of prehistory in the region. These investigations resulted in an initial description of the material culture and the construction of the first regional chronology (Sayles 1935). During the latter 1930s, Kelley et al. (1940) attempted to place the available archeological data into a cultural-historical and geological framework. This study introduced a series of cultural units defined according to the Midwestern Taxonomic System (McKern 1939) and related them to the geological sequence of Holocene alluviation described by Albritton and Bryan (1939). The better defined foci, which include Pecos River, Chisos, and Livermore, generally correspond to the Middle Archaic and Late Prehistoric periods that are currently recognized. This 1940 framework was reevaluated by subsequent reviews of Trans-Pecos archeology, but the basic framework remains unchanged.

Most of the early investigations in the Trans-Pecos focused on the Interior subregion, where numerous rockshelters and caves with abundant cultural resources most commonly were to be

found (Mallouf 1985). Research in areas to the north revealed a cultural-historical development quite distinctive from the Trans-Pecos interior. "Hueco Cave Dweller" assemblages located near El Paso were evaluated by Lehmer during the 1940s. Though now recognized as representative of Late Archaic and Transitional periods (Bradford 1980; Katz 1978), the Hueco phase was viewed as antecedent to the Jornada branch of the Mogollon. Three developmental phases within this Jornada cultural region were proposed by Lehmer (1948): the Mesilla, Doña Ana, and El Paso. These cultural constructs, although modified slightly and still the subject of debate, remain in use today.

Over the last several decades, research in the Trans-Pecos region has increased the data base and brought more clearly into focus relevant research problems and goals. Little *new* data has appeared sufficient, however, to alter significantly the syntheses generated from earlier research efforts. Marmaduke (1978a) compared the Trans-Pecos and Central Texas regions. This work, unfortunately, focused on an ecological explanation of the prehistoric adaptations rather than a formulation of the cultural-historical framework. More recently, Mallouf (1985) reviewed the archeological data base of the Eastern Trans-Pecos in order to identify the strengths and weaknesses in the data, to provide suggestions for research priorities, and to identify new research problems and goals. Even Mallouf's synthesis, however, is based on earlier investigations. Most of the work conducted since the 1960s (Baskin 1976; Cherry and Torrence 1973; Cliff and Fifield 1980; Creel 1981; Katz 1978; Marmaduke 1978a, 1978b; Marmaduke and Whitsett 1975) has been focused on the northern and southern extremes of the region and has been locational and descriptive in nature. Excavations have generally been limited to minimal subsurface testing (Baskin 1978; Bradford 1980; Kelly 1963; Kelly and Smith 1963; Marmaduke 1978a; Panowski 1981; Skinner et al. 1980), which provides little information for the resolution of regional research problems. Mallouf's (1985) review of major excavated sites includes only 15 sites, most of which were excavated prior to 1940. The antiquarian nature of many of the early investigations and the limited scope of more recent excavations have contributed to the poor state of knowledge surrounding the archeology of the Trans-Pecos region.

Results of an archeological reconnaissance south of the study area in Big Bend Ranch State Park (formerly Big Bend Ranch State Natural Area) in 1988 and 1994 have recently been published (Ing et al. 1996). Designed to determine the general nature of the prehistoric and historic cultural resources and select areas for recreation development within the approximately 270,000-ac park, this study represents the most comprehensive archeological data yet published, which deals with an extensive area comparable with the current study region.

Prior to archeological fieldwork, a records search was conducted at the Texas Archeological Research Laboratory (TARL) for known cultural properties in the vicinity of the proposed project segments. The results of this records search are discussed separately for each segment of the project area below.

3.10.2.1 Chispa Road Segment

In 1993, Geo-Marine, Inc. (GMI) conducted an intensive cultural resources inventory survey along approximately 146 mi of existing dirt roads south of Sanderson, Alpine, Marfa, and Van

Horn (Sale and Gibbs 1995). The Marfa line partially overlaps the current study area on the north end, but diverges to the south along Van Horn Creek, paralleling the current study area to the east. Two previously recorded sites from this project were revisited during the current study (41JD151 and 41JD152).

3.10.2.2 Candelaria Border Road Segment

The first archeological work within the current project area was conducted in 1948 by J. Charles Kelley, who performed a reconnaissance survey along the Rio Grande between Fabens and Redford, Texas (Kelley 1949a). During this study, 50 significant, medium to large sites were recorded. Excavations were conducted on four of the sites, including a pithouse located near Fort Quitman (Johnson et al. 1977). According to Johnson et al. (1977), the results of this reconnaissance survey were never completed, but portions of the study appear in other publications (Kelley 1949b, 1951, 1952a, 1952b, 1953). Three of Kelley's sites (41PS4, 41PS11, and 41PS13) were located within the right-of-way investigated during the current study.

Portions of the Rio Grande region which include the Candelaria Border Road segment were investigated in 1977, when the International Boundary Commission funded a reconnaissance survey (Johnson et al. 1977). While focused on the floodplain itself, this project study area included sections of "...adjacent terrace and pediment remnants, and the alluvial fans, terraces, and floors of tributary arroyos and washes... [and] also included canyon reaches where caves, rockshelters, or other suitable activity sites might be located" (Johnson et al. 1977:4). This reconnaissance reportedly covered approximately 180 kilometer (km) of valley reaches and 27 km of canyon reaches, but accessibility, vegetative ground cover, and budgetary constraints limited coverage in some areas. Based on information disclosed by local informants, several larger sites were also investigated outside the primary focus corridor. The study resulted in documentation of 141 prehistoric and historic sites, including several previously recorded by other researchers (Johnson et al. 1977:36). Limited temporal information was gained from the Rio Grande reconnaissance, but site density, topographical distribution, and site attribute information contributed significantly to the database of the current study area. A major portion of the area covered by the current study was located within the scope of the Johnson reconnaissance survey. Five sites recorded by Johnson et al. (1977) were located along the current study corridor (41PS369, 41PS382, 41PS383, 41PS384, and 41PS387), as well as three (41PS4, 41PS11, and 41PS13) which were originally recorded by Kelley (1949a) and later updated by Johnson.

Two sites which were plotted on the TARL maps along the Candelaria Border Road near Pilares and are located within the current project right-of-way do not have TARL numbers (and no data other than map plottings exist at TARL). These sites are depicted on TARL maps as "CM" followed by a letter and numeric designation. It was determined through consultation with TARL that these letters refer to the Centennial Museum at University of Texas at El Paso (UTEP). These designations were potentially used during the Johnson et al. (1977) survey, and efforts are currently being undertaken to resolve the matter.

3.10.2.3 FM 2810 Segment

In areas surrounding Ruidosa, Texas, several small archeological surveys have been conducted. The Centennial Museum at UTEP conducted two archeological surveys including the Johnson et al. (1977) reconnaissance survey and a 1980 study which was conducted as part of the Rio Grande Channelization Project. Four sites were recorded during the 1980 study, but no known report exists (Warren and Moore 1994). In 1981, archeological survey work was conducted by the Texas Department of Transportation; 14 new sites were recorded and five previously recorded sites were updated. Unfortunately, no report was published for this project (Warren and Moore 1994). Warren and Moore (1994) conducted a survey of approximately 2 mi of FM Road 2810 and two proposed well pad locations near Ruidosa, Texas, which were resurveyed during the current study. One site was located in the right-of-way (41PS666), which was revisited during the current survey.

3.10.2.4 Sierra Vieja Repeater Road Segment

One JTF-6 road improvement survey was conducted in 1991 along the Sierra Vieja Repeater Road segment (Winchell et al. 1992). The survey inventoried two sites (41PS561 and 41PS562). Both of these sites were lithic scatters with no temporally diagnostic artifacts present. The 1991 study overlaps the current survey on the southern portion.

3.10.3 Field Methods

3.10.3.1 General Methodology

The cultural resources survey was conducted along approximately 89.7 mi of existing road rights-of-way and 1.8 mi of the proposed new road right-of-way in Presidio and Jeff Davis counties, Texas. A 10-m wide survey corridor was examined on either side of existing roadcuts. When limiting physical barriers such as fence lines were encountered, a 20-m wide right-of-way on the other side of the road was inventoried. A 30-m corridor was examined along the new proposed right-of-way. In addition, proposed construction or improvement locations for seven borrow pits, two K-Span buildings, one bivouac area, two airstrips, and two helicopter landing pads were examined for cultural resources. Site locations and isolated occurrences were plotted on USGS 7.5' quadrangle maps, and *State of Texas Archeological Data Forms* were completed. Site maps were drawn for each site, and Universal Transverse Mercator (UTM) coordinates were determined for each site using a Global Positioning System (GPS) or by extrapolating from existing topography on existing USGS maps. Site boundaries within the survey corridor were flagged with red surveyor's tape, and overview photographs were taken of each site. Diagnostic artifacts were sketched and/or photographed in the field. No artifacts were collected. Previously recorded sites were relocated using maps and previous site forms obtained from the TARL database. Sites which were located within the right-of-way were flagged for avoidance with red surveyor's tape.

In distinguishing between archeological sites and isolated occurrences, three criteria were used as standard measures for evaluating the significance of cultural manifestations in the project area:

surficial artifact density, diversity, and potential for buried deposits. Low density scatters lacking diversity of artifact types were generally not recorded as sites. Isolated features such as hearths which lacked associated artifact assemblages and did not include evidence of intact deposits (i.e., eroded context) were similarly recorded as isolates.

3.10.3.2 Chispa Road Segment

The Chispa Road segment consists of approximately 14.4 mi of existing bladed county road. This segment extends from FM 2017 on the north end to the Candelaria Border Road cutoff. A 10-m wide survey corridor on both sides of the road was thoroughly examined for cultural resources. The visibility along the majority of this segment was good.

3.10.3.3 Candelaria Border Road Segment

The Candelaria Border Road segment consists of approximately 44.6 mi of improved and unimproved county road. This segment extends south from the Chispa Road intersection to the town of Candelaria. A 10-m wide survey corridor along both sides of the road was thoroughly examined for cultural resources, except where vegetation, topography, or fence lines barred access. In these cases, a 20-m wide corridor was surveyed on the opposite side of the road, where possible. Near the Rio Grande floodplain, portions of this right-of-way were completely covered with salt cedar and could not be surveyed. In several instances, steep grades were not inspected due to difficulty in traversing the cobble-strewn slopes and low probability of archeological sites. A 1.8-mi section near the southern portion of this segment was examined for a proposed new road, and a 30-m wide right-of-way corridor was inspected in this area. One proposed location for a K-Span building consisting of approximately 40,000 square meters (m^2) was examined for cultural resources along this road. Seven proposed borrow pit locations consisting of approximately 90,000 m^2 were examined. A proposed helicopter landing pad location consisting of 90 m^2 approximately 1 mi north of Candelaria was examined for cultural resources. A proposed bivouac area, located just south of McComb Creek and consisting of approximately 80,000 m^2, was examined for cultural resources. Approximately 18,000 m^2 on and surrounding an abandoned airstrip was also investigated about 2.0 mi south of the Chispa Road cutoff.

3.10.3.4 FM 2810 Segment

FM 2810 (Ruidosa Road) segment consists of approximately 21.0 mi of improved county road. This segment extends east from the town of Ruidosa, Texas, to the pavement section of FM 2810. A 10-m wide survey corridor on both sides of the road was thoroughly examined for cultural resources, except where vegetation, topography, or fence lines barred access. In these cases, a 20-m wide corridor was surveyed on the opposite side of the road, where possible. A portion of the west end of this right-of-way was confined to the existing roadcut by fence lines.

3.10.3.5 Sierra Vieja Repeater Road Segment

The Sierra Vieja Repeater Road segment consists of approximately 11.5 mi of unimproved and two-track road. This segment extends west from the Miller Ranch to the road, then north and east into Indian Peak Canyon, terminating at a water well. A 10-m wide corridor was examined on both sides of the road for cultural resources. Steep topography prevented survey coverage in places.

3.10.4 Survey Results

3.10.4.1 Summary Results of Investigations

A total of 27 new archeological sites, 15 previously recorded sites, and 42 isolated occurrences was identified as a result of the survey. Twenty-one of these new sites are attributable to aboriginal activities and five sites are attributable to historic activities. One site contained both aboriginal and historic activities. Based on temporally diagnostic artifacts (projectile points, ceramics, historic artifacts), four of the sites are temporally assigned to the Late Archaic period, one contains both Early and Late Archaic projectile points, five contain Formative period assemblages, one contains both Formative period and Historic period components, and five sites date to the Historic period. The remaining 11 sites consist of temporally nondiagnostic lithic artifact scatters which are considered to represent aboriginal activities. A total of 15 previously recorded sites was revisited, and one site (41PS13) was re-recorded.

3.10.4.2 Chispa Road Segment

No new sites were identified within this segment. A total of three isolated occurrences were observed along this segment. Two previously recorded sites (41JD151 and 41JD152) were revisited during the survey.

3.10.4.3 Candelaria Border Road Segment

A total of 23 sites was identified along the Candelaria Border Road segment. Fifteen of these sites are attributable to aboriginal activities, five are attributable to historic activities, and one contains both prehistoric and historic components. Fourteen of these sites are considered potentially eligible for inclusion on the NRHP. Ten previously recorded sites were revisited. One site (41PS13) was re-recorded during the current survey to correct previous data inaccuracies. A total of 32 isolated occurrences was discovered along this segment.

3.10.4.4 FM 2810 Segment

A total of two sites was identified along the FM 2810 segment. One of the sites is attributable to prehistoric activities, and one is attributable to aboriginal activities. Both of these sites are recommended as potentially eligible for inclusion on the NRHP. A total of five isolated occurrences was observed along this segment.

3.10.4.5 Sierra Vieja Repeater Road Segment

Two sites were identified along the Sierra Vieja Repeater Road segment. One of the sites is attributable to prehistoric activities, and one is attributable to aboriginal activities. Both of these sites are considered to be ineligible for inclusion on the NRHP. Two previously recorded aboriginal sites were revisited. A total of five isolated occurrences were observed along this segment.

4.0 ENVIRONMENTAL CONSEQUENCES

This chapter describes the potential impacts to the project areas from the proposed action and the no action alternative. The information used to analyze impacts included site surveys, literature review, and previous environmental documents.

4.1 Proposed Action

4.1.1 Land Use

The proposed project would have minimal impact on land use. Highway and railroad right-of-way use would not change. The project area roads traverse areas currently used as rangeland or open land and would not be affected by the proposed improvement activities for maintenance and repair or new construction.

4.1.2 Soils

Soils would be slightly to moderately affected by the proposed action. Exposure of subsurface soils during construction and road improvement activities would potentially increase soil erosion and siltation in washes and creeks. Removal of vegetation may decrease soil stability and increase the potential for soil erosion. Impacts to desert soils from subsequent erosion could also affect wildlife since both cover and food may decrease. The magnitude of impact would depend on a number of factors, including type of soil, type and percent coverage of vegetation, current and subsequent climatic conditions, and construction techniques.

Construction of permanent facilities (e.g., K-Span buildings, helicopter landing pads, obstacle course, borrow pits, etc.) and road improvement activities would result in the direct disturbance of more than 30 ac of soil. A NPDES PPP has been prepared and will be implemented for the proposed action. The PPP contained in Appendix A presents specific construction and mitigation measures (e.g., silt fences, drainage swales, check dams, pipe slope drains, etc.) to reduce or eliminate runoff impacts during proposed road improvement activities and to reduce the potential for soil erosion during construction. Based on these preventive measures and the small disturbed acreage spread out over a relatively large, linear area, soils in the project area would not be significantly affected by the construction and road improvement activities.

4.1.3 Water Resources

4.1.3.1 Surface/Groundwater

Construction-related activities associated with the proposed action could result in direct or indirect impacts to surface water resources in the project area. Port-O-Lets would be placed at selected intervals at the project sites and serviced at regular intervals to ensure that surface water quality would not be impacted during the proposed projects. A local permit has been acquired by a contractor, through the county, to dispose of laundry and wash "grey" water at designated locations (e.g., septic tanks) in the bivouac areas. Other surface water resources would not be

affected since road improvement activities would avoid any permanent water sources of the project corridor.

Washes and creeks crossing the various road sections in the project areas have been eroded by previous rain events. Construction activities could result in increased erosion and sedimentation of intermittent water washes and creeks. Several preventative measures would be implemented to reduce any erosion and sedimentation. Construction activities near and in washes/creeks would be postponed during rain events in order to minimize construction-related erosion and subsequent sedimentation, and would resume only after the wash/creek dries. In order to help prevent long-term erosion and sedimentation from vehicles crossing these washes/creeks, various culverts would be upgraded or installed, as needed, at ford sites. Although the initial placement of culverts would potentially result in increased turbidity due to loss of vegetation near the edge of the wash/creek, conditions would stabilize within one to two years as nearby vegetation naturally reseeds the area.

Since less than 1/3 acre of fill would be required at these crossings, the proposed action complies with the terms of the Nationwide Permit (NWP) 14, *Road Crossings*, for fill placed in roads crossing waters of the United States. A NWP 14, *Road Crossings*, was granted for the proposed action.

Construction-related activities could affect groundwater quality. Although unlikely, indirect effects upon groundwater resources in the project areas could potentially result from spillage and/or infiltration of hazardous materials (i.e., fuel spill, etc.). The military unit would implement protection techniques to prevent chemicals, fuels, oils, greases, bituminous materials, waste washings, herbicides, insecticides, and cement from entering the water supply. Any major spill would be contained by immediately constructing an earthen dike and applying a petroleum absorbent (i.e., granular, pillow, sock, etc.) to absorb and contain the spill. In addition, any major spill would be reported immediately to appropriate Federal, state, and local agencies. If necessary, a hazardous materials site assessment would be conducted in order to identify potential problems, additional cleanup procedures, and mitigative measures. This would include disposal of the absorbent in accordance with all Federal, state, and local regulations. Since the potential for infiltration to groundwater supplies is greater along washes/creeks, all vehicles would be fueled/repaired in designated spill containment areas away from washes/creeks along the route and at the biouvac sites in order to reduce the potential for groundwater pollution problems.

As previously mentioned, a NPDES PPP has been prepared specifically for this project in order to alleviate and/or mitigate any significant pollution effects to water resources in the project area. The requirements listed in this plan would be followed in order to meet the goals of the plan. Based on the contingency plan for a hazardous materials spill and the preventative and mitigation plans which would utilized during construction of the proposed project, water resources would not be affected by the proposed projects. Current road erosion problems with wash/creek crossings would be reduced and/or eliminated, thus decreasing total suspended solids, turbidity, and sedimentation to receiving waters (e.g., Rio Grande).

4.1.3.2 Wetlands

4.1.3.2.1 Jurisdictional Waters of the United States

No wetlands were located within the 20-m survey corridor. Of the 143 drainage channels located within the survey corridor, some of the drainages crossed the existing road more than once, for a total of 158 crossings. However, impacts to these crossings would include repair of existing culverts and installation of new culverts or concrete fords. These repairs and installations would be designed to allow for the normal flow of water and movement of aquatic organisms. This would result in a positive impact by eliminating stream sedimentation from the routine regrading of, and from vehicles driving through, washed out culverts and dirt fords.

4.1.3.2.2 Section 404 Permitting

Activities that result in the dredging and/or filling of jurisdictional waters of the United States are regulated under Section 404 of the CWA. The USACE has established NWPs to efficiently authorize common activities which do not significantly impact waters of the United States. The NWPs were modified and reissued by the USACE in the Federal Register (Volume 61, Number 241) on 13 December 1996, with an effective date of 11 February 1997. The USACE has the responsibility to authorize permitting under a NWP, or to require an Individual Permit.

No more than 1/3 ac of fill would be placed in waters of the United States for each drainage crossing, and no fill would be placed in special aquatic sites, such as wetlands. Therefore, the USACE, Albuquerque District, has authorized the proposed construction under NWP 3, *Maintenance*, and NWP 14, *Road Crossings*. JTF-6 must ensure compliance with all conditions of the permit, including submittal of a Compliance certification required by General Condition 14. The letter of authorization, Compliance Certification, and NWP Summaries (with Conditions) are included in Appendix E.

NWP 3, *Maintenance*, authorizes the discharge of fill material for the repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill. Minor deviations in the configuration or filled area which are necessary in order to make the repair are permitted, provided the environmental effects resulting from such repair are minimal. Currently serviceable means usable as is or with some maintenance, but not so degraded as to essentially require reconstruction. This NWP authorizes the repair of those structures destroyed by storms and floods, provided the repair is commenced or under contract to commence within two years of the date of destruction or damage.

NWP 14, *Road Crossings*, authorizes the discharge of fill material for roads crossing waters of the United States (including wetlands and other special aquatic sites) if the activity meets certain criteria. The fill placed in waters of the United States is limited to a filled area of no more than 1/3 ac. Furthermore, no more than a total of 200 linear ft of fill for the roadway can occur in special aquatic sites, including wetlands. For fills in wetlands, the permittee must notify the District Engineer in accordance with the "Notification" general condition. The notification must include a

delineation of the wetlands. This NWP may not be combined with NWP 26, *Headwaters and Isolated Water Discharges*, for the purpose of increasing the footprint of the road crossing.

4.1.3.3 Floodplains

Flood storage would not be affected since no vertical construction activities would occur in washes/creeks within the project area or in the Rio Grande floodplain. Construction activities near and in any of the creeks which occur in floodplain Zone A (areas of 100-year floods) would be postponed during rain events in order to minimize construction-related erosion and subsequent sedimentation. Construction would resume only after the intermittent creek dries. As a result of the contingency plans which would be implemented during the construction activities, no adverse impacts to the floodplain resources would occur.

4.1.4 Air Quality

Air quality impacts from construction activities (i.e., repair and upgrade of the unpaved roads and landing strips) would occur from (1) emissions due to fuel combustion from heavy equipment, labor transport vehicles, and helicopters; and (2) fugitive dust due to vehicle traffic on existing unpaved roads and ground-disturbing activities for road maintenance/repair and new construction.

4.1.4.1 Emissions from Fuel Combustion

Emissions from fuel combustion sources would be generated as a result of heavy equipment operation, labor transport vehicles, and helicopters. The equipment/vehicles would produce small amounts of hydrocarbons (HC) and exhaust fumes, and the helicopters would produce various amounts of CO, HC, nitrous oxides, and unburned particulates (e.g., smoke and soot). However, these emissions would be insignificant due to the small number of equipment needed during the short duration period of the road repair/construction and the minimal number of helicopter flights (one per day for medical evacuation and transporting construction supplies/personnel) scheduled in the Marfa Sector. The small increase in the amount of air pollutants from the proposed road maintenance/repair and new construction would be minimal and/or temporary in nature and would not significantly affect either the local or regional air quality in the project area.

4.1.4.2 Emissions of Fugitive Dust

The proposed action would generate fugitive dust emissions from grading operations and vehicle traffic on unpaved roads and from new construction. Particulate levels (i.e., PM_{10}) would temporarily increase with road repairs and construction projects and could be locally significant depending on climatic conditions. A road watering program would be enacted in order to reduce the release of particulates within the proposed project areas. Due to the extremely low population density in or near the proposed project areas and the short duration of the proposed projects, the human population would not be affected and fugitive dust emissions would be considered insignificant or negligible. In addition, since the emission sources would be

temporary (during the construction period), these emissions would not cause an exceedance of the NAAQS.

4.1.4.3 Emissions from Border Operations

4.1.4.3.1 Annual Emissions from Fuel Combustion

Only 1.8 mi of a new segment of unpaved road would be constructed, resulting in only a minor increase in travel distances on Candelaria Border Road. Thus, annual emissions from fuel combustion in USBP vehicles are expected to only increase infinitesimally from existing baseline conditions as a result of the proposed action.

4.1.4.3.2 Annual Emissions from Fugitive Dust

Annual fugitive dust emissions based on annual vehicle miles traveled on unpaved roads is not expected to change from existing baseline conditions as a result of the proposed action. Emission reductions may be realized from the proposed action if the compactible fill dirt is lower in silt content than the existing unpaved road surface. Fugitive dust may be further minimized by applying surface dust suppressants such as water and/or Calbinder and by compaction of the road surface fill dirt.

4.1.4.3.3 General Conformity Rule Analysis

Although there have been PM_{10} exceedances in the El Paso area of the EPA's El Paso-Las Cruces-Alamagordo AQCR No. 153, the area of the proposed action in Presidio and Jeff Davis counties is unclassifiable for PM_{10}. Thus the provisions of EPA's General Conformity Rule would not apply for the project area. Provisions of the General Conformity Rule state that "activities must not (1) cause or contribute to any new violation, (2) increase the frequency or severity of any existing violation, and (3) delay timely attainment of any standard."

Since the construction activities would be temporary, it is not expected that emissions due to construction activities would cause an exceedance of the NAAQS or impede reasonable progress toward attainment of other regulated pollutants. However, because the number of USBP vehicles on patrol is changing to three per week from the present one per week, there could be a slight annual emission increase due to the proposed project, and road improvement may result in annual emission increases of PM_{10}.

4.1.5 Biological Resources

4.1.5.1 Vegetation Communities

The primary direct effect of the proposed action would be the potential loss of vegetation and wildlife habitat. However, the proposed action would only involve widening the existing roadway in areas of poor drainage (by the minimum amount necessary) to improve drainage and stabilize the roadway. Therefore, new impacts to vegetation would be confined to non-roadway

construction areas and the 1.8-mi section of new road construction. Up to three K-Span buildings, one obstacle course, two helicopter landing pads, 15 low-water crossings, six borrow pits, three equipment storage yards, three bivouac areas, numerous culverts, and two unpaved landing strips would potentially be constructed along the proposed project corridor. These areas would impact less than 32.0 ac combined. A little more than 6.0 ac would also be cleared along the 24-ft by 1.8-mi section of new road construction just north of Candelaria. Since the new road construction is necessary in order to relocate the roadway out of the Rio Grande floodplain, potential negative impacts from vegetation loss should be offset by positive impacts from reduced vehicular traffic adjacent to the Rio Grande in the densely vegetated floodplain. Therefore, wildlife populations in the proposed project areas would not be significantly impacted by habitat loss due to the small area affected, the scattered nature of the affected areas, and the lower quality of habitat compared to the surrounding undisturbed sites.

4.1.5.2 Terrestrial Communities

The greatest movement of small animals generally happens when a disturbance such as road grading or dozing occurs. Since proposed construction would primarily be confined to the existing roadway, few animals would be directly impacted. Most impacts would occur to animals at the non-roadway construction areas. Mobile animals would escape to areas of similar habitat, while other slow or sedentary animals which utilize burrows (amphibians, lizards, and some small mammals) in the proposed construction areas could be lost. This displacement and/or reduction in the number of animals would not severely impact animal communities due to the small area affected, the scattered nature of the affected areas, and the presence of similar habitat adjacent to the construction area.

4.1.5.3 Threatened and Endangered Species

Federal and state listed threatened, endangered, or candidate species were not located during the November/December 1997 surveys within the proposed project areas. Habitat for Federally listed threatened or endangered plants within the survey corridor is sparse.

Hinkley oak occurs on dry limestone slopes below 5,000 ft. The presence of this habitat type within or adjacent to the survey corridor is limited to an approximately 0.2-mi section along the Sierra Vieja Repeater Road. However, Hinkley oak was not observed in this small section and should not be impacted by the proposed project. Little Aguja pondweed occurs in quiet pools and flowing streams of Little Aguja Canyon (see Table 3-3), which is not present within the survey corridor. Flowing streams are only present within the survey corridor at three existing crossings. This pondweed was not observed at the crossings, and would not be expected to occur due to continuous disturbance from vehicular traffic and road maintenance. Lloyd's mariposa cactus occurs on alkaline or limestone soils from 2,600 to 3,800 ft mean sea level. It was not observed within the survey corridor. Lloyd's hedgehog cactus occurs in desert shrub on open gravelly or sandy slopes. Although this habitat type was present along the majority of the survey corridor, no clumps of Lloyd's hedgehog cactus were observed during the surveys.

Two Federally endangered fish species are listed as potentially occurring in Jeff Davis County. The Comanche Springs pupfish occurs in springs, streams, irrigation canals, and ditches. Streams are present within the survey corridor at three locations, but netting or trapping of animal species was not conducted and this pupfish was not observed. The proposed action would potentially improve stream habitat by repairing crossings and reducing sedimentation. The Pecos gambusia requires shallow springs with stationary temperatures, which is not present within the survey corridor.

The bald eagle could migrate/feed along the Rio Grande, but would only temporarily occur in the survey corridor due to the absence of suitable nesting sites. No peregrine falcons were observed during the surveys, but could utilize the rocky cliffs (in the area to be rerouted) adjacent to the Rio Grande for nesting, roosting, or feeding. Peregrine falcons potentially using this area would be positively impacted by rerouting the road (and vehicular traffic) away from the rocky cliffs. Aplomado falcons are found in yucca grasslands and savannas, which are not located in or near the survey corridor.

The interior least tern requires nearly bare ground and alluvial islands or sandbars, which may be located near the survey corridor. Mountain plovers are found, within Texas, in short-grass prairie, overgrazed pasture, plowed fields, and desert (Rappole and Blacklock 1994). Undisturbed short-grass prairie is located within or adjacent to the survey corridor along the northern two miles of FM 2810 and most of the Sierra Vieja Repeater Road. However, the proposed project area is generally south of the mountain plover's breeding range (National Geographic Society 1987; Oberholser 1974). In addition, breeding mountain plovers require relatively expansive horizontal visibility and are associated with disturbed areas such as intense grazing and with prairie dog towns (Knowles et al. 1982). Therefore, the dense, 10- to 15-inch tall undisturbed grass in these areas would not be preferred by breeding mountain plovers, and this species should not be impacted by the proposed project.

The Mexican spotted owl is found in old-growth forested canyons, which are not located in or near the survey corridor. Suitable riparian habitat for the southwestern willow flycatcher is located along stream crossings on FM 2810 and within the dense saltcedar along the Rio Grande floodplain. However, impacts would not occur to breeding flycatchers since only very minimal riparian impacts would occur as needed for erosion prevention; the proposed project area is located outside the breeding range of the flycatcher (50 CFR Part 17); and the normal return migration date is approximately one month after the project completion date. Additionally, the reroute section would actually move the road (and traffic) away from a portion of potential habitat. Marginal suitable habitat for the black-capped vireo exists on one hillside on the Sierra Vieja Repeater Road. Impacts to the black-capped vireo would not be expected since the location is west of the known breeding range of the species and the small area of potential habitat is already disturbed with a powerline road. The protected bird species should not be impacted by the proposed action due to their migratory status in the project areas, the winter-early spring proposed construction period, and the lack of suitable habitat in the proposed project area.

The Mexican long-nosed bat is the only Federally listed mammal potentially occurring within the potential project area. This bat roosts in cave and tunnel entrances and feeds in desert scrub with

scattered century plants (*Agave* sp.). Roosting sites were not observed within the survey corridor, although suitable feeding habitat was scattered over a large portion of the survey corridor. Direct impacts would not occur to this species since this migratory bat is only in the United States from June through August, well past the anticipated completion date of April 15. Indirect impacts are not anticipated since less than 40 ac (of suitable and unsuitable) habitat would potentially be removed over the entire proposed project area.

4.1.6 Noise

Federal guidelines for noise assessments suggest the following three types of noise effects be evaluated: (1) short-term temporary noise level changes - defined as a change in the acoustical or vibrational environment which exists for six months, (2) long-term temporary noise level changes - defined as a change in the acoustical or vibrational environment which exists for longer than six months but less than 10 years, and (3) permanent noise level changes - defined as a change in the acoustical or vibrational environment which exists for longer than 10 years. The guidelines also recommend that the impacts be assessed for effects on speech and communications and on community annoyance (National Research Council 1977).

Noise levels within and adjacent to the project areas would increase during the proposed project. Construction and road improvement activities (e.g., vehicular movements of construction equipment [dump trucks, grader, roller, dozer]; the use of hand construction equipment [hammers, saws, etc.]; and utilization of equipment [generators], transport vehicles, and helicopters) would potentially result in short-term temporary noise impacts during the construction period in the project areas.

Construction and road improvement activities would involve short-term temporary noise level changes. The baseline noise level in most of the project areas is expected to be approximately 35-45 dBA (i.e., wilderness to rural ambient classification). Noise levels during construction and road improvement activities are expected to range from approximately 65 to 90 dBA due to equipment motor noise, back-up safety bells, and occasional helicopter flights (one per day). This is a significant increase in the noise levels over most of the project areas, although levels would be attenuated with distance. However, since most of the proposed project area is uninhabited or only temporarily occupied by passing vehicular traffic, persons in rural areas would not be significantly affected by the increase in noise levels throughout most of the project areas.

The only inhabited areas along or near the proposed project are the Las Palomas WMA (Ocotillo Unit) north of Ruidosa, the area along FM 2810 in Ruidosa, the Marfa Municipal Airport, and the USBP station property in Marfa. Normal baseline noise levels in these areas are expected to range from approximately 68 to 79 dBA. Most construction or road improvement activities in these areas would not be adjacent to any residential or industrial areas. Given the existing high ambient noise levels, distance to populated areas, topography, and vegetation, the proposed project would not significantly increase noise levels.

A small number of people, however, could be affected by construction/helicopter noise resulting from the proposed action. Persons subjected to construction/helicopter noise would find outdoor communication difficult at 2 ft (the normal distance two people stand when communicating) when the noise level was at or above 88 dB. For noise levels between 70 and 88 dB, people would have to communicate using a very loud to shouting voice. People in these areas would only experience construction-related (eight hours per day)/helicopter-related (one hour per day) noise for a very limited amount of time (six days per week for eight weeks).

Overall, noise effects in the project areas from the proposed action would not significantly affect persons over the long-term due to the discontinuous and temporary nature of the noise associated with the construction and road improvement activities and the very low population density in the project areas. Military construction personnel would be exposed to noise levels of 90 dBA during the work day and would be required to wear ear protection in order to prevent hearing loss. Hearing loss can be either temporary threshold shift (TTS) or permanent threshold shift (PTS), both indicated by a shifting to a higher sound level of the ear's acuity to perceive sound. The EPA has set a noise level of 75 dBA for an 8-hour exposure and 70 dBA for a 24-hour exposure as the average noise level standard requisite to protect 96 percent of the population from greater than 5 dBA PTS.

4.1.7 Socioeconomics

The proposed road improvement and construction activities would provide direct economic benefits to organizations involved in construction and indirect benefits, through economic multiplier effects, to the broader economy. The impacts on socioeconomic resources in the ROI will be discussed in the following sections.

4.1.7.1 Construction and Road Improvement Impacts

Activities associated with the proposed action would have insignificant impacts on the population. The activities would be performed by various military personnel (170 Marines from the MWSS-471, 75 Marines from the 6th ESB, 100 Marines from the 7th ESB, and 130 personnel from the 877th LEC) who would be brought into the local area until completion of the project. Any additional hiring, which is not expected at this time, would most likely occur within the local area. Thus, the proposed action would not induce permanent in- or out-migration to the ROI, and as a result, the population would not be impacted.

Direct expenditures of the proposed action would have direct impacts on employment, income, and sales within the ROI. The proposed construction would involve several phases and locations. Most labor and heavy equipment would be brought into the local area; however, all other material expenditures are expected to occur within the ROI. The expenditures which do occur within the ROI are subject to economic multipliers.

An estimate of the total expenditures on any locally hired labor and locally purchased materials, or the total construction costs for this project was not readily available at this time. It is anticipated that the overall consequences of the proposed action would be a positive but

insignificant impact on socioeconomic resources. This project is expected to cause a temporary increase in employment, income, and expenditures in the ROI. However, due to the relative size of the ROI economy, it is expected that the impacts from this type of construction would easily be absorbed into the broader economy.

4.1.7.2 Environmental Justice

The proposed project areas are located in rural areas with varying levels of economic characteristics. There would, therefore, be no expected disproportionately high and adverse impacts on minority and low-income populations. Thus, under Executive Order 12898, there would be no adverse environmental justice impacts.

4.1.8 Transportation

The placement of clean compactible fill material would generate numerous truck visits to the staging areas throughout the project areas during the construction period. Other construction traffic would include graders, rollers, dozers, etc. Public access to project roads could be restricted during construction period. In coordination with Presidio and Jeff Davis counties, any access road damaged during the proposed action would be repaired, as appropriate. USBP vehicle trips are expected to increase above their present rate. Impact to traffic, such as a slight volume increase on roads in both areas, would be permanent but insignificant.

4.1.9 Hazardous Waste

Counties or areas that are predominately rural, with historically low industrial activity and small populations, have a low number of reported hazardous waste sites. Database searches conducted at the Federal and state level did not list any reported hazardous waste sites in the proposed project areas.

4.1.10 Cultural Resources

A records search conducted at TARL prior to archeological fieldwork identified a total of 15 previously recorded sites within the proposed rights-of-way. All of the previously recorded sites were revisited during the survey. As a result of this survey, a total of 27 new sites was identified and recorded. Due to inaccuracies of previous documentation, one previously recorded site (41PS13) was re-recorded.

Three criteria were used as standard measures for evaluating the significance of cultural manifestations in the project area: surficial artifact density, diversity, and potential for buried deposits. Eleven of the newly recorded sites are considered ineligible for inclusion on the NRHP. These sites generally consist of surficial, very low density lithic artifact scatters or eroded features lacking associated artifact assemblages that appear to have little potential to contribute significant information about the past.

that I have. I will turn it over now to Judge Brisbin so he can go ahead and close it. After his closing remarks, we'll open it up for questions.

JUDGE BRISBIN: Well, I think, mainly, this time needs to be used for questions, but I would like to make a couple of general statements. First of all, of course, one of the obvious questions that come to mind whenever you are doing this and living in the area we are is the individual private property rights and the protection of private property rights.

I feel like the county is going to address them in a strong and assertive way. The contract we are going to draw up with the Joint Task Force-6 -- it's not finally approved yet, but as soon as it is, a copy will be made available to the public, and, of course, to the press. Those of you that know me know that I'm a strong believer of private property rights. We are not doing anything to infringe that.

The property owners themselves do want this road. At least the last time we went around, everyone signed off on it saying they wanted better access to the property, so we are trying to provide that.

border and restrict illegal activities. The negative socioeconomic impacts of the illegal drug activities would continue (INS/JTF-6 1994). Poor road conditions would also continue to limit access to the area by recreational and other users.

4.3 Cumulative Impacts

Other JTF-6 and related projects which have recently been completed in the region include firing range upgrade, helicopter landing zones and check station construction, and road improvements (repair/upgrade) associated with the increase of illegal drug trafficking (INS/JTF-6 1994). Impacts from these project are described in the following paragraph.

A recent 1993 JTF-6 project involved the construction of four helicopter landing zones (three in Brewster County and one in Jeff Davis County) and one check station (El Paso County) which impacted 0.17 and 0.72 ac, respectively; upgrade of a firing range which impacted 0.25 ac; and road repair/upgrade improvements which impacted 313.1 ac (JTF-6 1993). The majority of direct, short-term impacts from the these projects to vegetation (146.3 ac) and soils (313.1 ac) were located within the initial construction right-of-way of the existing roads which were previously disturbed or altered. Impacts such as removal of vegetation were not significant due to the previously disturbed nature of the areas, extensive area the project encompassed, and the quantity of vegetation habitats in the area. Additionally, protected species and cultural resources surveys were conducted prior to the construction project and resulted in expansion of the database concerning the distribution of protected species and historic sites in the area. Any Federally protected species or habitats and any cultural resource sites which may have been disturbed were mitigated through the ESA Section 7 and NHPA Section 106 process. Proper coordination with Federal and state agencies included buffer zones, avoidance, and monitoring in areas of protected species and historic properties.

Cumulative impacts are impacts on the environment resulting from incremental impacts of the proposed action added to other past, present, and reasonably foreseeable future actions. Cumulative impacts associated with the proposed action are discussed in the following paragraphs.

Cumulative short- and long-term impacts to local flora are primarily limited to removal of vegetation from previous project areas and areas slated for new construction. The impacts to flora generally occurred over an extended period and area, and the net loss of vegetation can have some adverse impact on fauna in the immediate area through the loss of habitat used for foraging, roosting, and breeding. As discussed previously, impacts to vegetation were typically limited to previously disturbed or altered right-of-way of existing roads and construction of new roads. Therefore, the previously disturbed nature of the areas and quantity of surrounding similar habitats would result in insignificant impacts to vegetation.

Unlike impacts to flora, short- and long-term impacts to regional wildlife are not restricted to the right-of-way of existing roads and new roads and may be direct or indirect. Direct effects occur from the loss of individual animals that come in contact with construction equipment (e.g., bulldozers, trucks) or exhibit direct physical auditory changes/nonauditory effects due noise disturbances. Though most wildlife species would be temporarily displaced from the proposed project area, loss of individual animals during construction activities is inevitable and would

generally be limited to small numbers of slow or sedentary insects, reptiles, amphibians, and small mammals (particularly those which utilize burrows). Mobile animals relocate to nearby areas of similar habitat. Impacts to slow or sedentary animals would be minor due to the previously disturbed nature of the right-of-way areas.
In general wildlife are more sensitive to noise disturbances than domestic animals, and birds are more sensitive than mammals. Specific reactions differ according to the species involved, type of noise, whether the noise source is visible, whether the species is alone or in a group, whether the species has been previously exposed, time of day and year, physical condition of the animal, physical environment (i.e., restrained or unrestrained), and whether other physical stressors (e.g., drought) are present. Although short-term effects from construction noise may occur, no significant long-term effects would be expected to occur since previous studies have not reported any significant long-term cumulative effects on wildlife species (Manci et al. 1988).

Indirect effects to animals result from habitat loss (would be limited due to the previously disturbed nature of the right-of-way areas), disruption of travel routes, and increased human presence in the area. Improvement to existing roads and construction of new roads have the potential to limit or inhibit wildlife movement through the immediate project area; however, birds, small and large mammals, reptiles, and amphibians are not typically affected since they would avoid the disrupted areas by traveling around them. The increased human presence in the area can affect wildlife indirectly by increasing the amount of road traffic which, in turn, can lead to increased loss of individual animals through contact with vehicles. Conversely, road improvements would have a positive impact on wildlife by allowing the USBP to more effectively and efficiently perform their duties which would reduce unlawful human presence in the area.

Potential adverse impacts to historic properties as a result of this investigation can be avoided by limiting horizontal expansion of existing roadbed within and adjacent to such properties. All of the historic properties are situated in relatively flat topography where the existing road is in relatively good condition and little improvements should be necessary in these areas. Impacts to historic properties along the section of proposed new road can be avoided by strict adherence to the proposed right-of-way as flagged during investigation. The cumulative impacts to historic properties along existing roads should be negligible, since previous road construction and maintenance have impacted site contexts. Cumulative impacts to historic properties within or adjacent to new road construction may result from increased traffic or maintenance activities that would contribute to erosional processes.

Temporary deleterious effects on air quality, ambient noise, and water quality can occur during road improvement and construction activities. These impacts are all localized and of short duration; therefore, no significant long-term or cumulative adverse impacts to these resources are expected.

There would be cumulative positive impacts on socioeconomic resources within the border area and the nation through reductions in illegal drug smuggling activities. In addition, by strengthening the ability of agents to perform their law enforcement duties, these actions can have cumulative positive socioeconomic impacts through reductions in illegal immigration, though the levels of these benefits are, at this point, unquantifiable.

Short- and long-term impacts from illegal traffic, including a decrease in visual aesthetics from increased litter and wind/water erosion from exposed soils, could be reduced due to USBP effectiveness as a result of the proposed action. The PEIS (INS/JTF-6 1994) describes proposed JTF-6 actions within the border region that would help alleviate impacts from illegal activities. All measures to ensure compliance with natural resource laws and regulations were also described in the PEIS. The PEIS complies with Federal law, pursuant to NEPA, the NDCS, AR 200-2 (Environmental Effects of Army Actions), and the National Defense Authorization Act that satisfies the President, Congress, and Secretary of Defense efforts in the "War on Drugs."

Increased USBP efficiency along the entire United States-Mexico border would most likely decrease adverse impacts to the entire border region. Short-term impacts may occur during proposed improvement activities, but positive impacts would remain long-term.

5.0 PUBLIC INVOLVEMENT

5.1 Agency Coordination

This chapter discusses consultation and coordination that occurred during preparation of this document. This includes contacts made during development of the proposed action, elimination of alternatives, and writing of the EA. Copies of agency coordination letters are presented in Appendix E. Formal and informal coordination has been conducted with the following agencies:

- U.S. Army Corps of Engineers (Fort Worth District),
- U.S. Army Corps of Engineers (Albuquerque District),
- Joint Task Force Six (JTF-6),
- Immigration and Naturalization Service (INS; U.S. Border Patrol [USBP]),
- State Historic Preservation Office (SHPO),
- U.S. Fish and Wildlife Service (USFWS),
- Texas Parks and Wildlife Department (TPWD),
- International Boundary and Water Commission (IBWC),
- Jeff Davis County Planning Office, and
- Presidio County Planning Office.

5.2 Public Information and Review

The draft version of this document was available for public review. A public information meeting was held on November 18, 1997, at the Presidio County Courthouse in Marfa, Texas. The purpose of the meeting was to inform interested parties about the upcoming project. A transcript of the proceedings is found in Appendix F. In accordance with NEPA and AR 200-2 (Environmental Effects of Army Actions), a 15-day review period of the draft EA was provided. Public comments and responses to comments are presented in Appendix F.

6.0 REFERENCES

6.1 Natural Resources

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8.0 LIST OF ACRONYMS AND ABBREVIATIONS

A.D.	=	Anno Domini (in the year of the Lord)
a.m.	=	ante meridiem (before noon)
AAQS	=	Ambient Air Quality Standards
ac	=	acres
AHPA	=	Archeological and Historic Preservation Act
AQCR	=	Air Quality Control Regions
AR	=	Army Regulations
ASTM	=	American Society for Testing and Materials
B.C.	=	Before Christ
C	=	Candidate
ca	=	circa (about)
CAA	=	Clean Air Act
CERCLA	=	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	=	CERCLA Information System
CERL	=	Construction Engineering Research Laboratory
CFR	=	Code of Federal Regulations
CO	=	carbon monoxide
Co	=	Company
CRM	=	Cultural Resources Management
CWA	=	Clean Water Act
CX	=	Categorical Exclusion
dB	=	decibels
dBA	=	decibels on the A-weighted scale
dBC	=	decibels on the C-weighted scale
DOD	=	Department of Defense
E	=	Endangered
EA	=	Environmental Assessment
e.g.	=	exempli gratia (for example)
EIFS	=	Economic Impact Forecast System
EPA	=	Environmental Protection Agency
ERIIS	=	Environmental Risk Information & Imaging Services
ERNS	=	Emergency Response Notification System
ESA	=	Endangered Species Act
ESB	=	Engineer Support Battalion
ESC	=	Engineer Support Company
et al.	=	et alii (and others)
etc.	=	et cetera (and others)
F	=	Fahrenheit
Fed.	=	Federal
FEMA	=	Federal Emergency Management Agency
FM	=	Farm-to-Market (road)
ft	=	feet
ft^2	=	square feet

gpm	=	gallons per minute
GMI	=	Geo-Marine, Inc.
GPS	=	Global Positioning System
HC	=	hydrocarbons
i.e.	=	id est (that is)
IBWC	=	International Boundary and Water Commission
in	=	inches
INS	=	Immigration and Naturalization Service
JTF-6	=	Joint Task Force Six
km	=	kilometers
L_{dn}	=	day-night average noise level
L_{eq}	=	equivalent sound level
lbs.	=	pounds
LEA	=	Law Enforcement Agency
LEC	=	Light Engineer Company
LRST	=	Leaking Registered Storage Tank
m	=	meters
m^2	=	square meters
mg/l	=	milligrams per liter
mi	=	mile
mi^2	=	square mile
mph	=	miles per hour
MWSS	=	Marine Wing Support Squadron
NA	=	Not Applicable
NAAQS	=	National Ambient Air Quality Standards
NDCS	=	National Drug Control Strategy
NEPA	=	National Environmental Policy Act
NHPA	=	National Historic Preservation Act
NO_2	=	nitrogen dioxide
No.	=	Number
NOI	=	Notice of Intent
NOT	=	Notice of Termination
NPDES	=	National Pollutant Discharge Elimination System
NPL	=	National Priorities List (or Superfund sites)
NRC	=	National Response Center
NRHP	=	National Register of Historic Places
NWP	=	Nationwide Permits
O_3	=	ozone
P.L.	=	Public Law
Pb	=	lead
PC	=	Proposed Candidate
PEIS	=	Programmatic Environmental Impact Statement
PM_{10}	=	particulate matter less than 10 microns in diameter
ppb	=	parts per billion
ppm	=	parts per million

p(p)	=	page(s)
PPP	=	Pollution Prevention Plan
PTS	=	Permanent Threshold Shift
RCRA	=	Resource Conservation and Recovery Act
REC	=	Record of Environmental Consideration
ROI	=	Region of Influence
ROWPU	=	Reverse Osmosis Water Purification Unit
RST	=	Registered Storage Tanks
SCS	=	Soil Conservation Service
SHPO	=	State Historic Preservation Officer
SO_2	=	sulfur dioxide
SOC	=	Species of Concern
spp.	=	species
ssp.	=	subspecies
St.	=	State
T	=	Threatened
TARL	=	Texas Archeological Research Laboratory
TNRCC	=	Texas Natural Resource Conservation Commission
TOC	=	Tactical Operational Center
TPT	=	Tactical Petroleum Terminal
TPWD	=	Texas Parks and Wildlife Department
TSA	=	Threatened due to Similarity of Appearance
TSD	=	Treatment, Storage, and Disposal
TTS	=	Temporary Threshold Shift
TWC	=	Texas Water Commission
$\mu g/m^3$	=	micrograms per cubic meter
U.S.	=	United States
USACE	=	U.S. Army Corps of Engineers
USBP	=	U.S. Border Patrol
USFWS	=	U.S. Fish and Wildlife Service
USGS	=	U.S. Geological Survey
UTEP	=	University of Texas at El Paso
UTM	=	Universal Transverse Mercator
var.	=	variety
WMA	=	Wildlife Management Area

APPENDICES

APPENDIX A

Stormwater Pollution Prevention Plan

GN8100

Pollution Prevention Plan
for
JTF-6 Mission JT423-98
in the Vicinity of
Marfa, Texas

January 1998

Prepared for:

United States Corps of Engineers
Fort Worth District

Prepared by:

Geo-Marine, Inc.
and
Ecology and Environment, Inc.

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1 Project Description

1.1 Purpose

This National Pollutant Discharge Elimination System (NPDES) Stormwater Pollution Prevention Plan (PPP) has been prepared for a U.S. Border Patrol Project. The project consists of road construction activities near Marfa, Texas for the U.S. Border Patrol. The goal of this project is for units of Joint Task Force-6 (JTF-6) to assist the U.S. Border Patrol in maintaining increased visibility within known high drug trafficking and smuggling activity areas.

1.2 General Activities

This project includes the construction and improvement of approximately 91.5 miles of roadway. In addition, the project includes the repair of two landing strips and construction of facilities associated with three base camps to be used by construction project personnel. Soil disturbing activities include the following:

- grading of roads,
- construction of culverts, fords, and/or gravel mattresses,
- excavation and construction of helicopter landing pads (helipads),
- construction of K-Span buildings,
- construction of a tactical petroleum terminal (TPT),
- construction of septic tank systems, and
- grading of existing landing strips.

The construction activity areas have been divided into four geographic sites: Chispa Road, Candelaria Border Road, Farm-to-Market (FM) Road 2810, and Sierra Vieja Repeater Road. Five military units will be performing the construction work:

- The Marine Wing Support Squadron-471 (MWSS-471), Dallas, Texas;
- Marine Reserves Engineer Support Company, 6th Engineer Support Battallion (ESC, 6th ESB), Battle Creek, Michigan;
- Bulk Fuel Company Alpha (Bulk Fuel Co A, 6th ESB) Tuscon, Arizona;
- Marines, Engineer Support Company, 7th Engineer Support Battallion (ESC, 7th ESB), Camp Pendleton, California; and
- U.S. Army 887th Light Engineer Company (LEC), Fort Campbell, Kentucky.

The ESC, 6th ESB, the ESC, 7th ESB, and the 887th LEC will perform road construction and maintenance. All units will improve both of the existing landing strips. The Bulk Fuel Co A, 6th ESB will be constructing the TPT. The MWSS-471 will perform the remaining construction activities (base camps, K-Span buildings, helipads, and equipment storage yards).

2 Site Descriptions

A description and summary of information for each of the project construction sites are presented in this section.

2.1 Location of Sites

As stated previously, the construction sites are located in west Texas and have been divided into four geographic site areas: Chispa Road, Candelaria Border Road, FM 2810, and Sierra Vieja Repeater Road. A general project location map is provided as Figure 2-1. Figures showing plans for each site are included in Appendix A as Figures A-1 through A-5.

2.2 Site Areas

The project encompasses an estimated 91.5 miles of roadway and covers an area of approximately 273.9 acres. A summary of site areas and general locations is provided in Table 2-1.

2.3 Site Ownership

The construction sites are owned by a number of private individuals. Ownership information is summarized in Table 2-2.

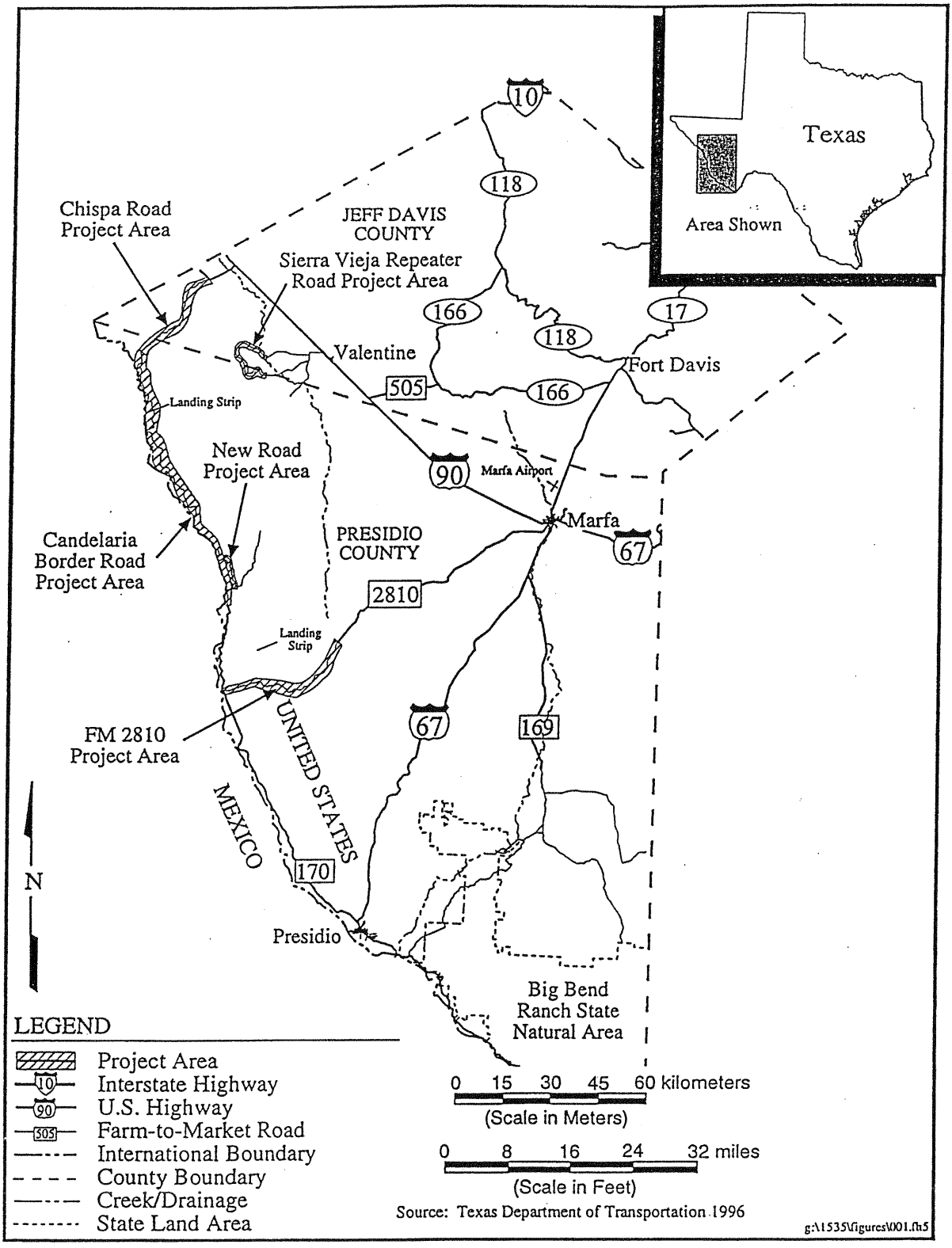


Figure 2-1. Location of the Marfa Project Area.

TABLE 2-1

SUMMARY OF SITE AREAS AND GENERAL LOCATIONS

SITE NAME	GENERAL LOCATION	COUNTY	LENGTH (MILES)	AREA[1,2,3] (ACRES)
Chispa Road	48 miles northwest of Marfa	Jeff Davis & Presidio	14.4	41.9
Candelaria Border Road	North of Candelaria, 38 miles west of Marfa	Presidio	44.6	129.8
FM 2810	East of Ruidosa, 14 miles west of Marfa	Presidio	21	61.1
Sierra Vieja Repeater Road	34 miles northwest of Marfa	Jeff Davis & Presidio	11.5	33.5
Landing Strip 1	West side of Candelaria Border Road, approximately 4 miles southwest of the Jeff Davis/Presidio county line	Presidio	0.38	2.3
Landing Strip 2	East side of Highway 170, approximately 1.5 miles north of Ruidosa and FM 2810	Presidio	0.38	2.3
North Base Camp	East side of Candelaria Border Road, approximately 2.5 miles south of Jeff Davis/Presidio county line	Presidio	NA[4]	1.0
Ruidosa Base Camp	West side of Highway 170, approximately 1.5 miles north of Ruidosa and FM 2810	Presidio	NA	1.0
Obstacle Course	Marfa airport, 2 miles north of Marfa, west of Highway 17	Presidio	NA	0.9
TPT	Marfa airport, 2 miles north of Marfa, west of Highway 17	Presidio	NA	0.02 (800 ft^2)
USBP Property in Marfa	Marfa	Presidio	NA	0.1

Notes:

[1] Areas represent soil disturbed areas only.

[2] Areas for roadways were determined by using a typical overall width of 24 feet.

[3] Areas for landing strips were determined by using a width of 50 feet.

[4] NA = Not Applicable.

TABLE 2-2

SITE OWNERS AND ADDRESSES

OWNER (CONTACT)	ADDRESS	PROPERTY
B.E.W. Financing (Dr. Bruce Wardle)	5813 Pecan Circle, Alvarado, Texas 76009	T & P Block #2, Sec. 69, 70, 71, 73
Bitterweed Investments (Stuart Stedman)	P.O. Box 7, Houston, Texas 77001	T & P Block #2, Sec. 46
Bradley H. Dodson	P.O. Box 1708, Haughton, Louisiana 71037	T & P Block #2, Sec. 63
Bryant Family Trust (William Armstrong)	P.O. Box 3277, San Angelo, Texas 76902	T & P Block #2, Sec. 26
Chanosky Estate J (Alan Wittenberg, Atty)	8300 Douglas Ave., Suite 800, Dallas, Texas 76102	T & P Block #2, Sec. 14, 15, 16, 17, 18
Dolores Sanchez	P.O. Box 674, Van Horn, Texas 79855	T & P Block #2, Sec. 53
Five Roanne Family, LTD. (Richard Hoopr)	7312 S. U.S. Hwy 183, Suite 101, Austin, Texas 78744	T & P Block #2, Sec. 23, 27, 29, 31, 33, 34, 35, 37 T & P Block #5, Sec. 03, 05
Frank Jeffet	5419 Wateka Dr., Dallas, Texas 75209	T & P Block #2, Sec. 39
Gilmore Properties (John Dilienzo)	P.O. Box 431, Somerset, Pennsylvania 15501	T & P Block #2, Sec. 28
Henry Beken	P.O. Box 605, Weimar, Texas 78962	T & P Block #2, Sec. 59
Hubert L. Gill	701 Brazos Suite #1050, Austin, Texas 78701	T & P Block #2, Sec. 41, 43
Infinity Development, Inc.	9269 Mission Gorge Road, Suite 170, Santee, California 92071	T & P Block #2, Sec. 61
Sol Thomas	P.O. Box 96, Sierra Blanca, Texas 79851	T & P Block #2, Sec. 67
J.A. Hoard	1001 W. Kansas, Midland, Texas 79701	T & P Block #2, Sec. 13
Jackie Pascual	P.O.Box 1417, Van Horn, Texas 79855	T & P Block #2, Sec. 50
James O'Neal	World of Tennis Square #109, Austin, Texas 78738	T & P Block #2, Sec. 41, 43 T & P Block #5, Sec. 9
Jimmie C. Dial	5450 Orion Ave., Norfolk, Virginia 23502	T & P Block #2, Sec. 13

TABLE 2-2

SITE OWNERS AND ADDRESSES

OWNER (CONTACT)	ADDRESS	PROPERTY
Joe A. Nessmith	RR 2, Box 281, Floresville, Texas 78114	T & P Block #2, Sec. 44
Joe C. Yelderman (Rod Squires, Atty)	3501 W. Waco Dr., Waco, Texas 76710	T & P Block #2, Sec. 10, 11, 12, 19, 24
Leandro Garcia	804 Upson, El Paso, Texas 79902	T & P Block #2, Sec. 50
Mrs. George Hannon	2104 Matterhorn Lane, Austin, Texas 78704	T & P Block #2, Sec. 19
Octavio Alvarado, Jr.	2366 Valley View PL, Escondido, California 92026	T & P Block #2, Sec. 51
Presidio Land, Inc. (Richard Hooper)	7312 U.S. Hwy 183, Suite 101, Austin, Texas 78744	T & P Block #2, Sec. 45, 47, 49
Presidio Properties (Malcolm McGregor)	1101 N.Mesa, El Paso, Texas 79902	T & P Block #2, Sec. 64, 65, 66
Richard Galation	422 Kickerillo, Houston, Texas 77079	T & P Block #2, Sec. 61
Robert Kincaid	P.O. Box 9513, Austin, Texas 78766	T & P Block #2, Sec. 62
Robert Starks	P.O. Box 818, Buffalo, Texas 75831	T & P Block #2, Sec. 57, 58
Stanley McAnelly, Jr.	4025 Hanover Ave., Dallas, Texas 75225	T & P Block #2, Sec. 13
Steve Scott	302 E. North Hill Dr., Spring, Texas 77373	T & P Block #2, Sec. 55, 56 T & P Block #5, Sec. 13, 14
Susan Tribuzio	537 E. 87th St., #3W, New York, New York 10128	T & P Block #2, Sec. 52
Texas General Land Office (Robert Dedman)	1700 N. Congress, Austin, Texas 78744	T & P Block #2, Sec. 20, 21, 22, 25, 30, 32, 36, 38, 40, 42, 44, 48, 52, 54, 68, 69, 70 ,71 T & P Block #5, Sec. 04, 50
Texmore Properties, Inc. (David Linsenbaum)	10455 W. Central Expressway, Suite 109-139, Dallas, Texas 75231	T & P Block #2, Sec. 60

2.4 Runoff Coefficients

Road construction activities will consist of constructing new roads and/or repairing existing dirt roads to a typical overall roadway width of 24 feet. Construction activities may include covering a 20-feet wide area of roadway to be used by vehicles with several inches of calbinder, and compacting. Otherwise, native soils will be graded and compacted. Two feet wide shoulders will then be sloped on both sides of the roadway. Final slopes across the construction areas will match or slightly modify pre-existing slopes. See Appendix A for an illustration of a typical road cross-section.

To determine site runoff coefficients, or C values, soil types were determined for each location using soil surveys provided by the U.S. Department of Agriculture, Soil Conservation Service (SCS). Soil classifications are summarized in Table 2-3. Runoff coefficients were then assigned to each site based on the soil type. Because the finished roads will contain more than one type of surface material, final C values were estimated by weighting the C values for the surface materials. A runoff coefficient of 0.8 was assigned to the calbinder portion of the roadway (83 percent), while the runoff coefficient for the soil type at each site was used for the shoulders of the roadway (17 percent). Although the roadways may consist of compacted native soils rather than calbinder, the C value for calbinder was used to obtain a more conservative (larger) runoff coefficient. Runoff coefficients for the landing strips, obstacle course, TPT and base camps were based on compacted native soils. The runoff coefficient for the K-Span building at the Marfa USBP property was based on concrete. Runoff coefficients are also presented in Table 2-3.

2.5 Receiving Waters

Drainage patterns will not be significantly altered by the construction activities. Receiving waters for each site are listed in Table 2-4 and shown in the site plans (Appendix A).

TABLE 2-3

SOIL CLASSIFICATIONS AND RUNOFF COEFFICIENTS

SITE NAME	SOIL ASSOCIATION	SOIL GROUP[1]	RUNOFF COEFFICIENT (SOIL)[2]	RUNOFF COEFFICIENT (FINAL SITE)
Chispa Road	Redona-Verhalen-Reagan	B/D/B	0.32	0.72
	Nickel-Canutio-Vieja	D/B/D	0.36	0.73
	Nickel-Canutio	D/B	0.34	0.72
Candelaria Border Road	Glendale-Anthony-Togah	B/B/D	0.32	0.72
	Volco-Brewster	D/D	0.40	0.73
	Nickel-Canutio	D/B	0.34	0.72
FM 2810	Brewster	D	0.40	0.73
	Lozier	D	0.40	0.73
	Nickel-Canutio	D/B	0.34	0.72
	Musquiz-Santo Thomas	C/B	0.31	0.72
Sierra Vieja Repeater Road	Redona-Verhalen-Reagan	B/D/B	0.32	0.72
Landing Strip 1	Nickel-Canutio-Vieja	D/B/D	0.36	0.60
Landing Strip 2	Nickel-Canutio-Vieja	D/B/D	0.36	0.60
North Base Camp	Nickel-Canutio-Vieja	D/B/D	0.36	0.60
Ruidosa Base Camp	Nickel-Canutio-Vieja	D/B/D	0.36	0.60
Obstacle Course	Musquiz-Santo Tomas-Boracho	C/B/C	0.32	0.60
TPT	Musquiz-Santo Tomas-Boracho	C/B/C	0.32	0.60
Marfa USBP Property	Gageby-Rockhouse	B/A	0.24	0.96

Notes:

[1] Soil groups are defined as follows:

A = Deep sands, deep loesses, aggregated soils
B = Shallow loess and sandy loams
C = Many clay loams, shallow sandy loams, soils low in organic matter, and soils high in clay
D = Soils of high swelling percentage, heavy plastic clays, and certain saline soils

[2] Based on C values for pastures.

TABLE 2-4

SITE RECEIVING WATERS

SITE NAME	RECEIVING WATERS[1]
Chispa Road	Van Horn Creek
Candelaria Border Road	Rio Grande River (adjacent) San Carlos Creek McComb Creek Capote Creek Quinn Creek Van Horn Creek
FM 2810	Arroyo Escondido Pinto Canyon Hot Springs Creek Boulder Canyon Arroyo Tjieras
Sierra Vieja	Wild Horse Creek
Landing Strip 1	Rio Grande River (0.25 mile west)
Landing Strip 2	Rio Grande River (1 mile west)
North Base Camp	Rio Grande River (1.2 miles west)
Obstacle Course	Alamito Creek (adjacent)
TPT	Alamito Creek (adjacent)
USBP Property in Marfa	Alamito Creek (adjacent)
Ruidosa Base Camp	Rio Grande River (adjacent)

Notes:

[1] Receiving waters are crossed by roads unless otherwise noted.

2.6 Construction Tasks and Sequence of Major Activities

The primary task of this project is the construction and repair of approximately 91.5 miles of road. Additional tasks will include construction of USBP obstacle course and TPT (20 feet x 40 feet) at the Marfa airport and assembling two temporary base camps to support construction activities. A third base camp, located at an existing U.S. Border Patrol Station in Marfa, will also be used to support construction activities. However, the only soil disturbing activity that will occur at this location is the construction of a K-Span building (60 feet x 50 feet). The North and Ruidosa base camps will include living quarters, K-Span buildings (60 feet x 50 feet), helipads (35 feet x 35 feet), septic tank systems, and equipment storage areas (250 feet x 150 feet). The North base camp will also include a laundry/bath point. Laundry and bath wastewaters will be discharged to the septic tank system. Septic tank systems will meet all applicable state regulatory requirements. Living and office quarters will consist of tents with wooden pallets used as floors at each camp. Existing vegetation at the North and Ruidosa base camps will not be cleared, except for the construction of the K-Span buildings, helicopter landing pads, septic tank systems, and equipment storage areas. Construction of the USBP obstacle course at the Marfa airport will require clearing of less than one acre of vegetation to install equipment. In all cases, an effort will be made to minimize disturbance of native vegetation.

Tasks that include soil disturbing activities are:

- Construction and improvement of roads;
- Construction of helicopter pads and K-Span buildings;
- Repair/improvement of landing strips;
- Construction of equipment storage areas;
- Construction of septic tank systems; and
- Construction of TPT.

An environmental assessment that included a field survey was conducted for each of the site areas to determine if wetlands, threatened and endangered species, and/or critical habitats exist on or adjacent to site construction areas. None were identified in the site areas. A field survey was also conducted for cultural resources to

determine if any site areas were potentially eligible for listing on the Registry of National Historic Places. Two potential sites were identified adjacent to but not on the construction sites. The sites were marked to minimize disturbance by construction activities. Activities for each soil disturbing task are described in the following sections.

2.6.1 Road Construction/Road Repair

Construction/repair activities include the following steps:

(1) Sensitive areas identified as containing cultural resource sites, unique habitats, rare and endangered plants and animals, and wetlands were identified prior to the start of construction activities. These field surveyed areas were staked and flagged and will not be disturbed by construction activities.

(2) Areas will be cleared and grubbed of vegetation using hand equipment and/or machinery if vegetation is present.

(3) Soils will be moistened by a water truck to control dust.

(4) Grading of roads will be done with heavy construction equipment.

(5) Calbinder may be used to stabilize the surfaces of the roadways.

(6) Soils and/or calbinder will be compacted with a roller.

(7) If topography allows, drainage ditches will be excavated on either one or both sides of the roadway to control and direct runoff. Soils from the excavations will be graded and compacted.

(8) Low-water crossings, such as culverts and fords, will be constructed at major stream bottoms, when crossed by roads. Minor narrow dry washes will be graded.

(9) Retaining walls will be used to stabilize slopes at fords and culverts, when required.

(10) When roadways occur in and parallel to stream channels, reno mattresses will be used to stabilize the surface of the roadway and reduce erosion. The reno mattresses consist of wire cages filled with rip rap. These structures allow water to flow through while slowing water velocity.

(11) Straw bale check dams and/or siltation fencing will be installed, as required, at points of water conveyance to reduce erosion and trap sediment.

2.6.2 K-Span Buildings

Soil disturbing activities for the K-Span buildings will include the construction of a 6- to 12-inch thick concrete pad. The K-Span buildings will also include metal poles used to support sheet metal. Construction activities include the following:

(1) Sensitive areas identified as containing cultural resource sites, unique habitats, rare and endangered plants and animals, and wetlands were identified prior to the start of construction activities. These field surveyed areas were staked and flagged and will not be disturbed by construction activities.

(2) Areas will be cleared and grubbed of vegetation using hand equipment and/or machinery.

(3) Eroded and disturbed areas will be hand graded. Building sites will not be located on or adjacent to major stream bottoms, unnamed tributaries, and drainage ways and will not be disturbed by hand construction activities.

(4) Straw bale check dams and or siltation fencing will be installed, as required, at nearby points of water conveyance to reduce erosion and trap sediment.

2.6.3 Landing Strips, Helipads and Equipment Storage Areas

Soil disturbing activities for the landing strips, helipads and equipment storage areas are similar, because all will include clearing, grading, and compacting native soils. Construction activities include the following steps:

(1) Sensitive areas identified as containing cultural resource sites, unique habitats, rare and endangered plants and animals, and wetlands were identified prior to the start of construction activities. These field surveyed areas were staked and flagged and will not be disturbed by construction activities.

(2) Areas will be cleared and grubbed of vegetation using hand equipment and/or machinery.

(3) Soils will be moistened by a water truck to control dust.

(4) Grading will be done with heavy construction equipment.

(5) Soils will be compacted with a roller.

2.6.4 Septic Tank Systems

A septic tank system will be constructed at both the North and Ruidosa base camps. Construction activities include the following steps:

(1) Sensitive areas identified as containing cultural resource sites, unique habitats, rare and endangered plants and animals, and wetlands were identified prior to the start of construction activities. These field surveyed areas were staked and flagged and will not be disturbed by construction activities.

(2) Areas will be cleared and grubbed of vegetation using hand equipment and/or machinery.

(3) Soils will be excavated to several feet below grade. Soil piles will be covered and/or moistened to prevent wind erosion, as required.

(4) Septic tank and gravel leach field will be installed.

(5) Soils will be backfilled into excavation.

(6) The excavation area and remaining soils will be graded and compacted.

2.6.5 TPT

One TPT will be constructed at the Marfa Airport. The TPT consists of a lined excavation that contains two 20,000 gallon fuel bags, used to refuel construction vehicles and aircraft. Construction activities include the following steps:

(1) Sensitive areas identified as containing cultural resource sites, unique habitats, rare and endangered plants and animals, and wetlands were identified prior to the start of construction activities. These field

surveyed areas were staked and flagged and will not be disturbed by construction activities.

(2) Areas will be cleared and grubbed of vegetation using hand equipment and/or machinery.

(3) Soils will be excavated one to two feet below grade. Soil piles will be covered and/or moistened to prevent wind erosion, as required.

(4) The excavation will be lined with an impermeable liner.

(5) Excavated soils will be used to form a one to two-foot high earthen dike (berm) surrounding the excavation. Standard engineering practices (e.g., watering and compaction) will be used to stabilize the berms. Any remaining excavated soils will be graded and compacted.

(6) At the conclusion of the project, the liner will be removed from the excavation. The excavation will then be backfilled by collapsing berms into the excavation and compacting.

3 Controls

3.1 Erosion and Sediment Controls

3.1.1 Stabilization Practices

Stabilization practices include the following:

- Portions of road surfaces designed for vehicular traffic will be stabilized with caliche and/or calbinder and compacted.
- Roadways, landing strips, helipads and equipment storage areas will be sprinkled with water to control dust during construction.
- During construction, soil piles will be sprinkled with water and/or covered to control dust and wind erosion, as necessary.
- Retaining walls and/or swales will be installed at fords or culverts as required.

3.1.2 Structural Controls

Structural controls include:

- Bales of straw and/or silt fences will be staked in low areas to control surface water runoff and sedimentation and to reduce velocity of runoff.
- Reno mattresses (wire cages filled with riprap) will be used along stream channels to reduce erosion.
- Soil berms/dikes will be installed around the TPT to contain runoff.
- Drainage ditches will be installed beside roadways where topography allows, using best engineerng practices to decrease velocity and volume of stormwater runoff.

3.2 Stormwater Management

Permanent stormwater management features will be low water crossings, such as fords and culverts. Drainage ditches will be constructed on the sides of roadways, where topography allows. Water will be routed to the nearest drainage channel and discharged. Retaining walls will be constructed near culverts and fords, as required, to control erosion.

3.2.1 Non-Stormwater Discharges

Non-stormwater discharges will not be allowed during construction of the project, except for emergency fire-fighting flows and other flows permitted in Federal Register Volume 57, Number 175, 9 September 1992. Any spill of a hazardous substance or oil in excess of reporting quantities shall be reported as required under 40 CFR 110 (Discharge of oil). The site superintendent will notify the National Response Center (NRC) at (800) 424-8802 in accordance with the requirements of 40 CFR 117 (Determination of reportable quantities for hazardous substances) and 40 CFR 302 (Designation, reportable quantities, and notification) as soon as he or she has knowledge of the discharge. The superintendent will submit, within 14 calendar days of knowledge of the release, a written description of the release, the date that such release occurred, the circumstances leading to the release, and steps to be taken to minimize the chance of future occurrences to the appropriate EPA Regional Office. The stormwater PPP must be modified within 14 calendar days of knowledge of the release to: provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed and modified to identify measures to prevent the reoccurrence of such releases and to respond to such releases.

3.3 Other Controls

3.3.1 Waste Disposal

All personnel participating in construction activities will be instructed on the procedures for waste disposal.

3.3.1.1 Waste Materials

All construction waste materials (brush, paper, cloth, etc.) will be collected daily, stored in containers and disposed of in an approved manner or at a state approved landfill facility. No construction waste materials will be buried onsite. The trash storage containers will meet all local and state solid waste management regulations. Containers will have secure, tight-fitting lids and be emptied as needed. A limited amount of construction waste will be generated.

3.3.1.2 Hazardous Waste

All hazardous waste will be transported, handled, stored, and used in strict accordance with local, state, federal, and manufacturer's recommendations. All hazardous waste materials will be disposed of in the manner specified by local or state regulation, or by the manufacturer.

3.3.1.3 Sanitary Waste

All sanitary waste will be collected in portable units by a licensed contractor or qualified military sanitary waste disposal personnel. All waste will also be disposed of through the installed septic system, in accordance with local and state regulations.

3.3.2 Offsite Vehicle Tracking

Excess mud, dirt, or rock tracked on the public roadways will be removed daily. Excavated material will not be removed from the site.

3.3.3 Dust Control

Roadways and soil piles will be sprayed with water as needed, to reduce the generation of dust and prevent wind erosion.

3.4 Timing of Controls/Measures

Stabilized construction entrances will be installed prior to the start of construction activities. All clearing, grubbing, and control of stormwater runoff will be done contemporaneously with grading/regrading and other construction activities.

If construction activity temporarily ceases at a site for 14 or more calendar days, the site will be stabilized by measures such as moistening and/or compacting soils, covering soil piles, or building retaining walls; unless construction activities will resume within 21 calendar days of the cessation of construction activities.

Once construction activity ceases permanently, the entire site will be stabilized. Silt fences and straw bale check dams will be removed after any accumulated sediments have been removed.

3.5 Certification of Compliance

The stormwater PPP was prepared in accordance with guidelines published in the Federal Register, Volume 57, Number 175, September 9, 1992 which is currently undergoing a proposed reissuance (Federal Register, Volume 62, Number 105, June 2, 1997). After construction, an EPA stormwater permit for industrial operations will not be required. Stormwater in the project area is regulated by the EPA.

3.6 Maintenance/Inspection Procedures

These are the inspection and maintenance practices that will be used to maintain erosion and sediment controls.

- All pollution prevention measures will be inspected by the assigned military quality control organization at least once every seven days and within 24 hours following any storm event of 0.5 inches or more.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
- Silt fences will be inspected for depth of sediment, tears, to ensure that the fabric is securely attached to the fence posts, and to verify that the fence posts are firmly in the ground.
- Built up sediment will be removed when it has reached one-third the height of the siltation fence.
- Areas being regraded will be inspected for erosion and soil loss from the site.

- Discharge points will be inspected for signs of erosion or sediment associated with the discharge.

- Locations where vehicles enter and leave the site will be checked for signs of off-site sediment tracking.

- Best Management Practices (BMP) and pollution control maintenance procedures will be inspected for adequacy.

- A maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the inspector is provided in Appendix B.

- Any deficiencies will be noted in the inspection report and corrections implemented within seven calendar days. The PPP will be revised as necessary during the construction period.

4 Spill Prevention and Control

4.1 Inventory For Pollution Prevention Plan

The following materials or substances are expected to be present on site during construction activities:

- Diesel Fuel
- Gasoline Fuel
- Oil
- Transmission Fluid
- Hydraulic Fluid
- Lubricants
- Marking Paint

4.2 Spill Prevention

4.2.1 Material Management Practices

The following management practices will be implemented to reduce the risk of spills or accidental exposure of materials and substances to storm water runoff.

4.2.1.1 Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project.

- An effort will be made to store only enough product to do the job.

- All materials stored on site will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.

- Products will be kept in their original containers with the original manufacturer's label.

- Substances will not be mixed with one another unless recommended by the manufacturer. Whenever possible, all of a product will be used before disposing of the container.

- Manufacturer's recommendations for proper use and disposal will be followed.

- The site superintendent will conduct daily inspections to ensure proper use and disposal of onsite materials.

- All vehicles and equipment will be monitored daily for leaks during regularly scheduled preventive maintenance actions.

4.2.1.2 Hazardous Products

These practices are used to reduce the risks associated with hazardous materials.

- Products will be kept in original sealed containers unless they are not resealable.

- Original labels and material safety data sheets will be retained.

- Surplus materials will be removed daily after working hours.

- All empty containers will be disposed of in an approved manner.

- If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

4.2.2 Product Specific Practices

The following product specific practices will be followed onsite.

4.2.2.1 Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

4.2.2.2 Paints

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to manufacturers' instructions, or state and local regulations.

4.2.2.3 Concrete Trucks

Concrete trucks will wash out or discharge surplus concrete or drum wash water on the site in designated areas only.

4.3 Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup. Specific spill control procedures are outlined in a separate spill control plan found in each unit's field standard operating procedure manual. The following practices are general guidance only:

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location for the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. All spills will be cleaned up immediately after discovery.
- Personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate state or local government agency, regardless of size.

- The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.

- The site superintendent responsible for the day-to-day site operations will be the spill prevention and cleanup coordinator.

5 Certification

5.1 Pollution Prevention Plan Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed: _____ Date: _____

Rudy Rodriquez
Assistant Chief Patrol Agent
U. S. Border Patrol

5.2 Contractor's Certification

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature	Company Name and Address	Responsible for
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

A Site Plans and Typical Road Cross-Section

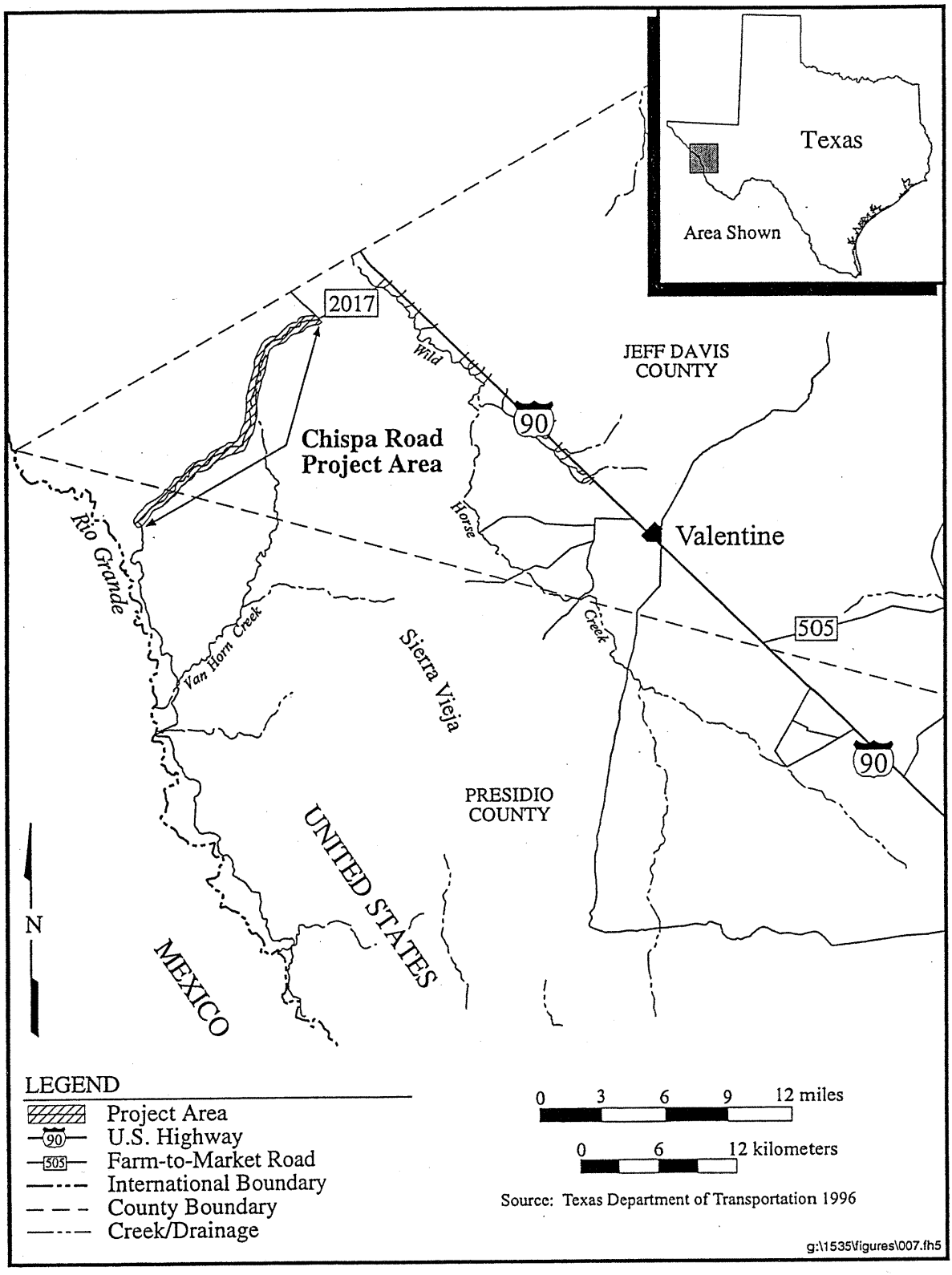


Figure A-1. Chispa Road Project Area.

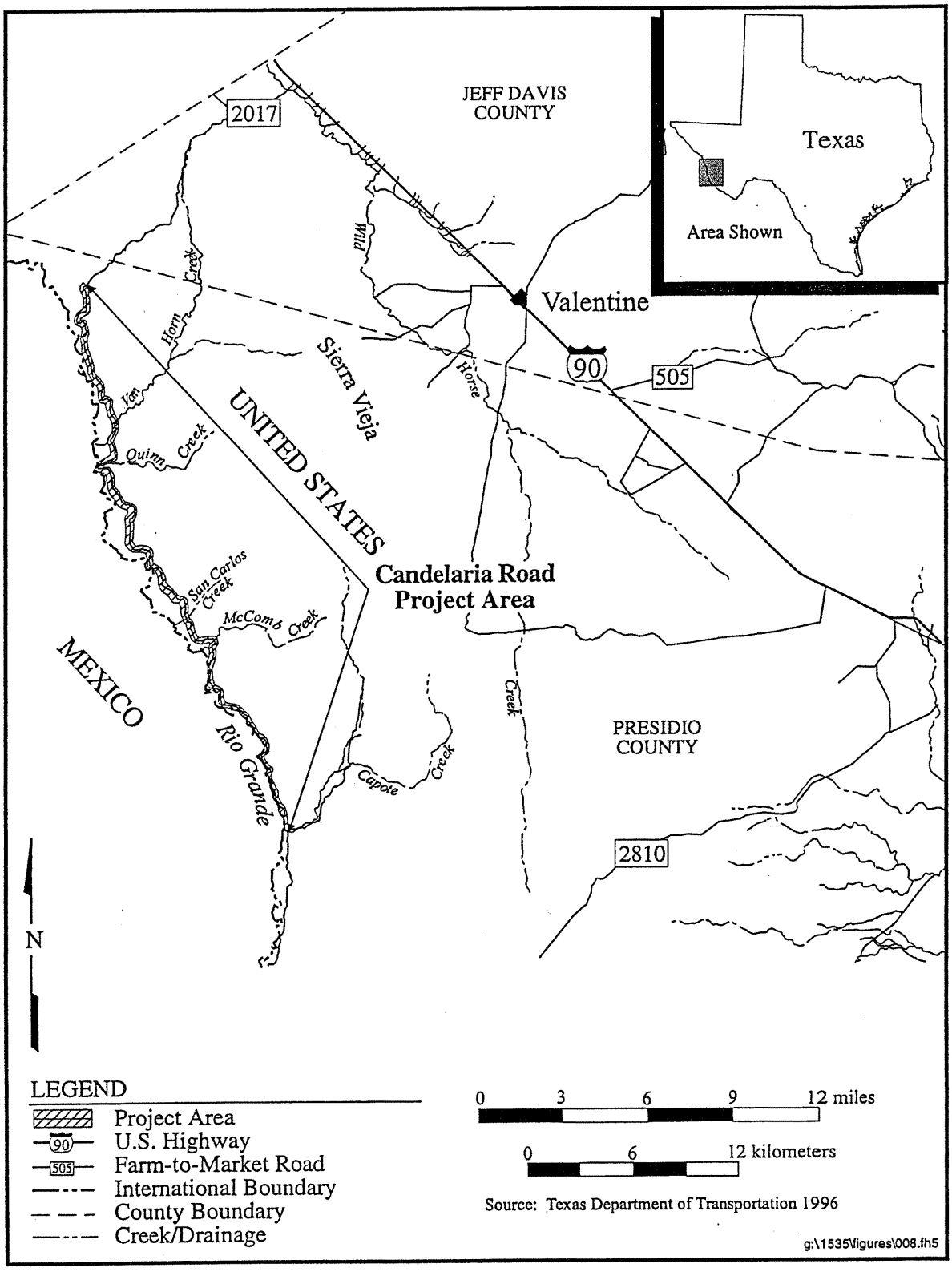


Figure A-2. Candelaria Border Road Project Area.

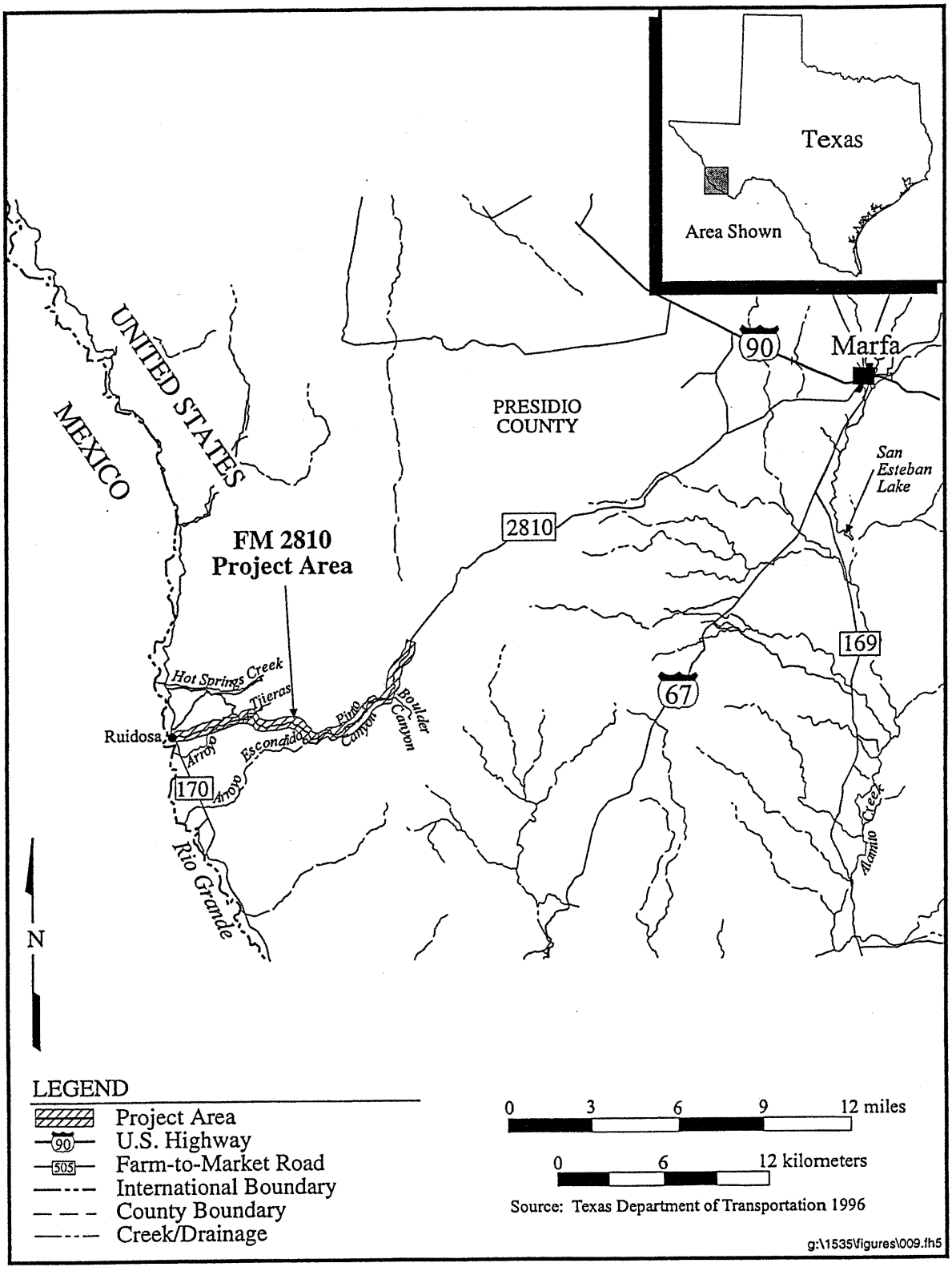


Figure A-3. FM 2810 Project Area.

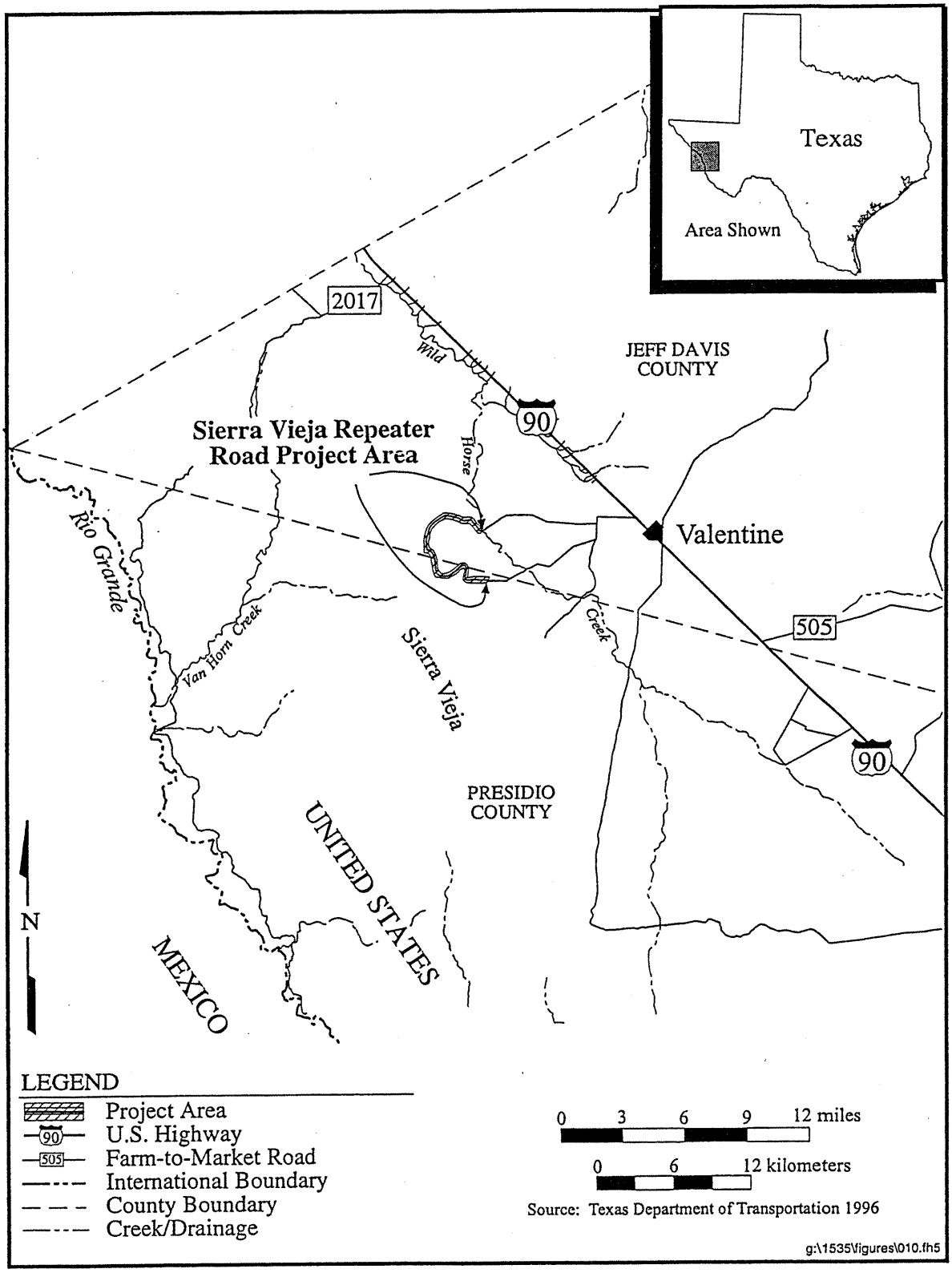


Figure A-4. Sierra Vieja Repeater Road Project Area.

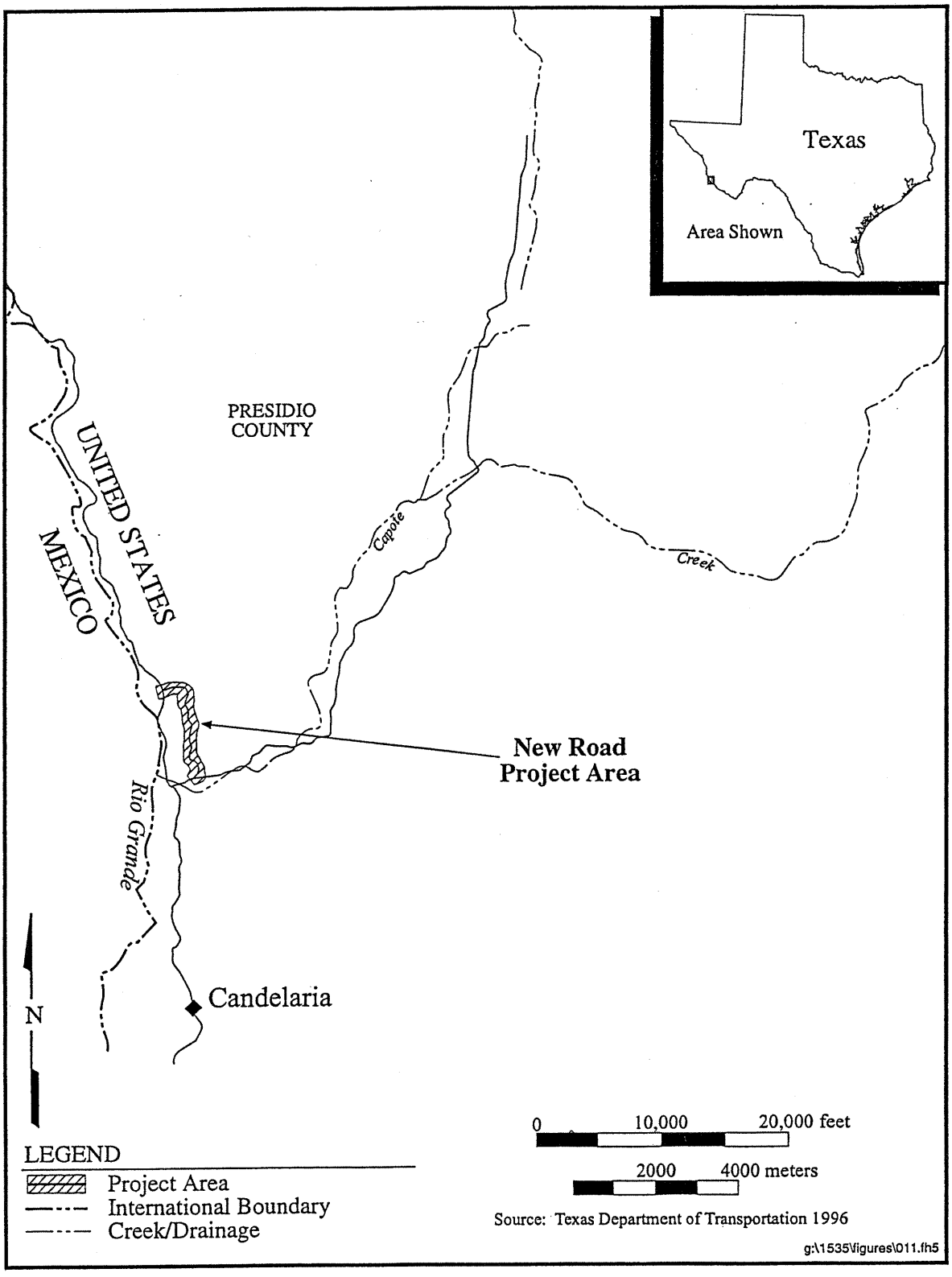


Figure A-5. New Road Project Area.

B Inspection and Maintenance Report Form

STORMWATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
MARFA, TEXAS

TO BE COMPLETED EVERY 7 DAYS AND WITHIN 24 HOURS OF
A RAINFALL EVENT OF 0.5 INCHES OR MORE

INSPECTOR: _____ DATE: _____

INSPECTOR'S QUALIFICATIONS:

_____

_____

_____

_____

DAYS SINCE LAST RAINFALL: _____
AMOUNT OF LAST RAINFALL: _____ INCHES

STABILIZATION MEASURES					
AREA	**DATE SINCE LAST DISTURBED**	**DATE OF NEXT DISTURBANCE**	**STABILIZED? (YES/NO)**	**STABILIZED WITH**	**CONDITION**

STABILIZATION REQUIRED:

_____

_____

_____

_____

_____

TO BE PERFORMED BY:_____ ON OR BEFORE: _____

STORMWATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
MARFA, TEXAS
(Continued)

CONTROLS

STABILIZED CONSTRUCTION ENTRANCE:			
LOCATION	DOES MUCH SEDIMENT GET TRACKED ON TO ROAD?	DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO LEAVE THE SITE?	IS THE CULVERT BENEATH THE ENTRANCE WORKING?

SILT FENCES			
LOCATION	DEPTH OF SEDIMENT	CONDITION OF FABRIC	POLES IN GROUND?

STRAW BALES			
LOCATION	BALES IN GOOD CONDITION?	EVIDENCE OF WASHOUT?	DEPTH OF SEDIMENT

STORMWATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
MARFA, TEXAS
(Continued)

CONTROLS

RETAINING WALLS		
LOCATION	IS WALL STABILIZED?	EVIDENCE OF WASHOUT?

SWALES			
LOCATION	CONDITION OF SIDE SLOPES	SIGNS OF OVERTOPPING?	EVIDENCE OF EROSION?

RENO MATTRESS			
LOCATION	CONDITION OF FABRIC	CONDITION OF WIRE CAGE	EVIDENCE OF EROSION?

MAINTENANCE REQUIRED FOR CONTROLS:

_____

_____

_____

_____

_____

_____

TO BE PERFORMED BY: _____ ON OR BEFORE: _____

C Revisions to Plan

STORMWATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
NOTICE OF REVISION

CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:

REASONS FOR CHANGES:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE: _____ DATE:_____

D Notice of Intent and Notice of Termination

THIS FORM REPLACES PREVIOUS FORM 3510-6 (8-92)
See Reverse for Instructions

Form Approved. OMB No. 2040-0086
Approval expires 8-31-98

NPDES ORM

EPA

United States Environmental Protection Agency
Washington, DC 20460

Notice of Intent (NOI) for Storm Water Discharges Associated with Industrial Activity Under a NPDES Permit

Submission of this Notice of Intent constitutes notice that the party identified in Section II of this form intends to be authorized by a NPDES permit issued for storm water discharges associated with industrial activity in the State identified in Section III of this form. Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit. ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.

Permit Selection: You **must** indicate the NPDES Storm Water general permit under which you are applying for coverage. Check one of these.

Baseline Industrial [ ] Baseline Construction [X] Multi-Sector (Group Permit) [ ]

II. Facility Operator Information

Name: U S BORDER PATROL - MARFA SECTOR Phone: 9157294353

Address: 300 MADRID ST Status of Owner/Operator: F

City: MARFA State: TX ZIP Code: 79843-

III. Facility/Site Location Information

Name: JTF-6 MARFA PROJECT Is the facility located on Indian Lands? (Y or N) N

Address:

City: MARFA State: TX ZIP Code:

Latitude: 301820 Longitude: 1040107 Quarter: Section: Township: Range:

IV. Site Activity Information

MS4 Operator Name:

Receiving Water Body: RIO GRANDE

If you are filing as a co-permittee, enter storm water general permit number:

SIC or Designated Activity Code: Primary: CO 2nd:

Is the facility required to submit monitoring data? (1, 2, 3, or 4) 1

If You Have Another Existing NPDES Permit, Enter Permit Number:

Multi-Sector Permit Applicants Only:

Based on the Instructions provided in Addendum H of the Multi-Sector permit, are species identified in Addendum H in proximity to the storm water discharges to be covered under this permit, or the areas of BMP construction to control those storm water discharges? (Y or N) [ ]

Will construction (land disturbing activities) be conducted for storm water controls? (Y or N) [ ]

Is applicant subject to and in compliance with a written historic preservation agreement? (Y or N) [ ]

V. Additional Information Required for Construction Activities Only

Project Start Date: 011598 Completion Date: 051598 Estimated Area to be Disturbed (in Acres): 317.2 Is the Storm Water Pollution Prevention Plan in compliance with State and/or Local sediment and erosion plans? (Y or N) Y

VI. Certification:

The certification statement in Box 1 applies to all applicants.
The certification statement in Box 2 applies only to facilities applying for the Multi-Sector storm water general permit.

BOX 1

ALL APPLICANTS

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

BOX 2

MULTI-SECTOR STORM WATER GENERAL PERMIT APPLICANTS ONLY:

I certify under penalty of law that I have read and understand Part I.B. eligibility requirements for coverage under the Multi-Sector storm water general permit, including those requirements relating to the protection of species identified in Addendum H.

To the best of my knowledge, the discharges covered under this permit, and construction of BMPs to control storm water run-off, are not likely to and will not likely adversely affect any species identified in Addendum H of the Multi-Sector storm water general permit or are otherwise eligible for coverage due to previous authorization under the Endangered Species Act.

To the best of my knowledge, I further certify that such discharges, and construction of BMPs to control storm water run-off, do not have an effect on properties listed or eligible for listing on the National Register of Historic Places under the National Historic Preservation Act, or are otherwise eligible for coverage due to a previous agreement under the National Historic Preservation Act.

I understand that continued coverage under the Multi-Sector general permit is contingent upon maintaining eligibility as provided for in Part I.B.

Print Name: RUDY RODRIQUEZ Date:

Signature: _____

Instructions - EPA Form 3510-6
Notice Of Intent (NOI) For Storm Water Discharges Associated With Industrial Activity To Be Covered Under a NPDES General Permit

Who Must File A Notice Of Intent (NOI) Form

Federal law at 40 CFR Part 122 prohibits point source discharges of storm water associated with industrial activity to a water body(ies) of the U.S. without a National Pollutant Discharge Elimination System (NPDES) permit. The operator of an industrial activity that has such a storm water discharge must submit a NOI to obtain coverage under a NPDES Storm Water General Permit. If you have questions about whether you need a permit under the NPDES Storm Water program, or if you need information as to whether a particular program is administered by EPA or a state agency, telephone or write to the Notice of Intent Processing Center at (703) 931-3230.

Where To File NOI Form

NOIs must be sent to the following address:

Storm Water Notice of Intent (4203)
401 M Street, S.W.
Washington, DC 20460

Completing The Form

You must type or print, using upper-case letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your responses. If you have any questions on this form, call the Notice of Intent Processing Center at (703) 931-3230.

Section I Permit Selection

You must indicate the NPDES storm water general permit under which you are applying for coverage. Check one box only. The Baseline Industrial and Baseline Construction permits were issued in September 1992. The Multi-Sector Permit became effective October 1, 1995.

Section II Facility Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the facility or site described in this application. The name of the operator may or may not be the same as the name of the facility. The responsible party is the legal entity that controls the facility's operation, rather than the plant or site manager. Do not use a colloquial name. Enter the complete address and telephone number of the operator.

Enter the appropriate letter to indicate the legal status of the operator of the facility: F = Federal; S = State; M = Public (other than federal or state) P = Private

Section III Facility/Site Location Information

Enter the facility's or site's official or legal name and complete street address, including city, state, and ZIP code. Do not provide a P.O. Box number as the street address. **If applying for a Baseline Permit and the facility or site lacks a street address, indicate the state and either the latitude and longitude of the facility to the nearest 15 seconds or the quarter, section, township, and range (to the nearest quarter section) of the approximate center of the site. If applying for the Multi-Sector Permit indicate the complete street address and either the latitude and longitude of the facility to the nearest 15 seconds or the quarter, section, township, and range (to the nearest quarter section) of the approximate center of the site.**

All applicants must indicate whether the facility is located on Indian lands.

Section IV Site Activity Information

If the storm water discharges to a municipal separate storm sewer system (MS4), enter the name of the operator of the MS4 (e.g., municipality name, county name) and the receiving water of the discharge from the MS4. (A MS4 is defined as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is owned or operated by a state, city, town, borough, county, parish, district, association, or other public body which is designed or used for collecting or conveying storm water.)

If the facility discharges storm water directly to receiving water(s), enter the name of the receiving water(s).

If you are filing as a co-permittee and a storm water general permit number has been issued, enter the number in the place provided.

Indicate the monitoring status of the facility. Refer to the permit for information on monitoring requirements. Indicate the monitoring status by entering one of the following:

1 = Not subject to monitoring requirements under the conditions of the permit.
2 = Subject to monitoring requirements and required to submit data.
3 = Subject to monitoring requirements but not required to submit data.
4 = Subject to monitoring requirements but submitting certification for monitoring exclusion.

List, in descending order of significance, up to two 4-digit standard industrial classification (SIC) codes that best describe the principal products or services provided at the facility or site identified in Section III of this application. If you are applying for coverage under the construction general permit, enter "CO" (which represents SIC codes 1500-1799).

For industrial activities defined in 40 CFR 122.26(b)(14)(i)-(xi) that do not have SIC codes that accurately describe the principal products produced or services provided, use the following 2-character codes.

HZ = Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under subtitle C of RCRA [40 CFR 122.26(b)(14)(iv)];
LF = Landfills, land application sites, and open dumps that receive or have received any industrial wastes, including those that are subject to regulation under subtitle D of RCRA [40 CFR 122.26(b)(14)(v)];
SE = Steam electric power generating facilities, including coal handling sites [40 CFR 122.26(b)(14)(vii)];
TW = Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage [40 CFR 122.26(b)(ix)]; or
CO = Construction activities [40 CFR 122.26(b)(14)(x)].

If there is another NPDES permit presently issued for the facility or site listed in Section III, enter the permit number. If an application for the facility has been submitted but no permit number has been assigned, enter the application number.

Facilities applying for coverage under the Multi-Sector storm water general permit must answer the last three questions in Section IV. Refer to Addendum H of the Multi-Sector general permit for a list of species that are either proposed or listed as threatened or endangered. "BMP" means "Best Management Practices" that are used to control storm water discharges.

Indicate whether any construction will be conducted to install or develop storm water runoff controls.

Section V Additional Information Required for Construction Activities Only

Construction activities must complete Section V in addition to Sections I through IV. Only construction activities need to complete Section V.

Enter the project start date and the estimated completion date for the entire development plan.

Provide an estimate of the total number of acres of the site on which soil will be disturbed (round to the nearest acre).

Indicate whether the storm water pollution prevention plan for the site is in compliance with approved state and/or local sediment and erosion plans, permits, or storm water management plans.

Section VI Certification

Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality, state, Federal, or other public facility: by either a principal executive officer or ranking elected official.

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 0.5 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimates, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, 2136, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, or Director, Office of Information and Regulator Affairs, Office of Management and Budget, Washington, DC 20503.

THIS FORM REPLACES PREVIOUS FORM 3510-7 (8-92)
Please See Instructions Before Completing This Form

Form Approved. OMB No. 2040-0044
Approval expires: 8-31-98

NPDES FORM

EPA

United States Environmental Protection Agency
Washington, DC 20460

Notice of Termination (NOT) of Coverage Under a NPDES General Permit for Storm Water Discharges Associated with Industrial Activity

Submission of this Notice of Termination constitutes notice that the party identified in Section II of this form is no longer authorized to discharge storm water associated with industrial activity under the NPDES program. ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.

I. Permit Information

NPDES Storm Water General Permit Number: _____

Check Here if You are No Longer the Operator of the Facility: ☐

Check Here if the Storm Water Discharge is Being Terminated: [X]

II. Facility Operator Information

Name: U.S. BORDER PATROL - MARFA SECTOR Phone: _____

Address: 300 MADRID ST.

City: MARFA State: TX ZIP Code: 79843

III. Facility/Site Location Information

Name: JTF-6 MARFA PROJECT

Address: _____

City: MARFA State: TX ZIP Code: _____

Latitude: 301820 Longitude: 1040107 Quarter: _____ Section: _____ Township: _____ Range: _____

IV. Certification:

I certify under penalty of law that all storm water discharges associated with industrial activity from the identified facility that are authorized by a NPDES general permit have been eliminated or that I am no longer the operator of the facility or construction site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge storm water associated with industrial activity under this general permit, and that discharging pollutants in storm water associated with industrial activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this Notice of Termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

Print Name: RUDY RODRIQUEZ Date: _____

Signature: _____

Instructions for Completing Notice of Termination (NOT) Form

Who May File a Notice of Termination (NOT) Form

Permittees who are presently covered under an EPA-issued National Pollutant Discharge Elimination System (NPDES) General Permit (including the 1995 Multi-Sector Permit) for Storm Water Dicharges Associated with Industrial Activity may submit a Notice of Termination (NOT) form when their facilities no longer have any storm water discharges associated with industrial activity as defined in the storm water regulations at 40 CFR 122.26(b)(14), or when they are no longer the operator of the facilities.

For construction activities, elimination of all storm water discharges associated with industrial activity occurs when disturbed soils at the construction site have been finally stabilized and temporary erosion and sediment control measures have been removed or will be removed at an appropriate time, or that all storm water discharges associated with industrial activity from the construction site that are authorized by a NPDES general permit have otherwise been eliminated. Final stabilization means that all soil-disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

Where to File NOT Form

Send this form to the the following address:

Storm Water Notice of Termination (4203)
401 M Street, S.W.
Washington, DC 20460

Completing the Form

Type or print, using upper-case letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions about this form, telephone or write the Notice of Intent Processing Center at (703) 931-3230.

Instructions - EPA Form 3510-7
Notice of Termination (NOT) of Coverage Under The NPDES General Permit for Storm Water Discharges Associated With Industrial Activity

Section I Permit Information

Enter the existing NPDES Storm Water General Permit number assigned to the facility or site identified in Section III. If you do not know the permit number, telephone or write your EPA Regional storm water contact person.

Indicate your reason for submitting this Notice of Termination by checking the appropriate box:

If there has been a change of operator and you are no longer the operator of the facility or site identified in Section III, check the corresponding box.

If all storm water discharges at the facility or site identified in Section III have been terminated, check the corresponding box.

Section II Facility Operator Information

Give the legal name of the person, firm, public organization, or any other entity that operates the facility or site described in this application. The name of the operator may or may not be the same name as the facility. The operator of the facility is the legal entity which controls the facility's operation, rather than the plant or site manager. Do not use a colloquial name. Enter the complete address and telephone number of the operator.

Section III Facility/Site Location Information

Enter the facility's or site's official or legal name and complete address, including city, state and ZIP code. If the facility lacks a street address, indicate the state, the latitude and longitude of the facility to the nearest 15 seconds, or the quarter, section, township, and range (to the nearest quarter section) of the approximate center of the site.

Section IV Certification

Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality, State, Federal, or other public facility: by either a principal executive officer or ranking elected official.

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 0.5 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, 2136, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

APPENDIX B

List of Common/Scientific Plant Names

Appendix B

List of Common/Scientific Plant Names

Alkali sacaton/*Sporobolus airoides*
Allthorn/*Koeberlinia spinosa*
Arizona cottontop/*Trichachne californica*
Austrailian saltbush/*Atriplex semibaccata*
Beargrass/*Nolina erumpens*
Black grama/*Bouteloua eriopoda*
Blue grama/*Bouteloua gracilis*
Brickellbush/*Brickellia* spp.
Bullgrass/*Muhlenbergia emersleyi*
Burrobush/*Hymenoclea monogyra*
Bushy bluestem/*Andropogon glomeratus*
Broom snakeweed/*Gutierrezia* spp.
Burrograss/*Scleropogon brevifolius*
Bush muhly/*Muhlenbergia porteri*
Catclaw acacia/*Acacia greggii*
Cattail/*Typha* spp.
Cenzia/*Leucophyllum frutescens*
Chino grama/*Bouteloua ramosa*
Cholla/*Opuntia imbricata* var. *imbricata*
Common buttonbush/*Cephalanthus occidentalis*
Cottonwood/*Populus deltoides*
Creosotebush/*Larrea tridentata*
Desert willow/*Chilopsis linearis*
Emory oak/*Quercus emoryi*
Evergreen sumac/*Rhus virens*

Finestem needlegrass/*Stipa tenuissima*
Fluffgrass/*Erioneuron pulchellum*
Fourwing saltbush/*Atriplex canescens*
Gambel's oak/*Quercus gambelii*
Giant reed/*Arundo donax*
Guayacan/*Guaiacum angustifolia*
Heartleaf groundcherry/*Physalis hederaefolia*
Hairy grama/*Bouteloua hirsuta*
Javelina bush/*Condalia ericoides*
Jimmyweed/*Isocoma wrightii*
Johnsongrass/*Sorghum halepense*
Largeleaf oxalis/*Oxalis amplifolia*
Lotebush/*Ziziphus obtusifolia*
Mariola/*Parthenium incanum*
Mesquite/*Prosopis glandulosa*
Mexican devilweed/*Aster spinosus*
Mountain mahogany/*Cercocarpus montanus*
Mountain snowberry/*Symphoricarpos oreophilus*
Ocotillo/*Fouquieria splendens*
Palmella/*Yucca elata*
Pine dropseed/*Blepharoneuron tricholepsis*
Pine muhly/*Muhlenbergia dubia*
Pinyon ricegrass/*Piptochaetium fimbriatum*
Pitaya/*Echinocereus enneacanthus*
Pricklypear/*Opuntia* spp.
Pringle needlegrass/*Stipa pringlei*
Range ratany/*Krameria glandulosa*
Rough menodora/*Menodora scabra*
Saltgrass/*Distichlis spicata* var. *stricta*
Seepwillow/*Baccharis glutinosa*
Sideoats grama/*Bouteloua curtipendula*
Silverleaf oak/*Quercus hypoleucoides*
Skeletonleaf golden eye/*Viguiera stenoloba*
Sotol/*Dasylirion* spp.
Southwestern chokeberry/*Prunus serotina* var. *eximia*
Tarbush/*Flourensia cernua*
Tasajillo/*Opuntia leptocaulis*
Texas madrone/*Arbutus xalapensis*
Texas pricklypear/*Opuntia lindheimeri*
Torrey anthericum/*Anthericum torreyi*
Torrey yucca/*Yucca torreyi*
Whitebush/*Aloysia gratissima*
Whitethorn acacia/*Acacia constricta*
Wolfberry/*Lycium* spp.
Yucca/*Yucca* spp.

Source: Hatch et al. 1990

APPENDIX C

Federal Species of Concern Potentially Occurring in Presidio and Jeff Davis Counties

Appendix C

Federal Species of Concern Potentially Occurring in
Presidio and Jeff Davis Counties

TAXA	
COUNTY: Presidio	
PLANTS	
Alamo beard tongue	*Penstemon alamosensis*
Bokes button cactus	*Epithelantha bokei*
Bushy wild-buckwheat	*Eriogonum suffruticossum*
Contra yerba	*Pediomelum pentaphyllum*
Cylinder spikesedge	*Eleocharis cylindrica*
Dense cory cactus	*Coryphantha dasyacantha dasyacantha*
Desert night-blooming cereus	*Cereus greggii* var. *greggii*
Duncan's cory cactus	*Coryphantha duncanii*
Frenso Creek thelypody	*Thelypodium tenue*
Golden-spine hedgehog cactus	*Echinocereus chloranthus* var. *neocapillus*
Hard-spined pincushion cactus	*Coryphantha strobiliformis* var. *durispina*
Hinckley's columbine	*Aquilegia crysantha hinckleyana*
Lone spur columbine	*Aquilegia longissima*
Many-flowered unicorn plant	*Proboscidea spicata*
Many stem spider flower	*Cleome multicaulis*
Perennial caltrop	*Kallstroemia perennans*
Robert's stonecrop	*Sedum robertsianum*
Sierra Vieja brickellbush	*Brickellia viejensis*
Silver wolfberry	*Lycium poberlum* var. *berberioides*
Small fryxell wort	*Fryxellia pygmaea*
Swallow spurge	*Chamaesyce goldonrina*
Trans-Pecos maidenbush	*Andrachne arida*
White column cory cactus	*Coryphantha albiolumaeia*
Withered woolly milk-vetch	*Astrogalus mollissimus marcidus*
INVERTEBRATES	
Presidio County springsnail	*Fontelicella metcalfi*
FISH	
Rio Grande shiner	*Notropis jemezanus*
REPTILES	
Gray-checkered whiptail	*Cniemidophorus dixoni*
BIRDS	
Baird's sparrow	*Ammodramus bairdii*
Ferruginous hawk	*Buteo regalis*
Loggerhead shrike	*Lanius ludovicianus*
Western burrowing owl	*Athene cunicularia hypugea*
MAMMALS	
Arizona black-tailed prairie dog	*Cynomys ludovicianus arizonensis*
Davis Mountain cottontail rabbit	*Sylvilagus floridanus robustus*

Appendix C
(Cont'd)

Federal Species of Concern Potentially Occurring in
Presidio and Jeff Davis Counties

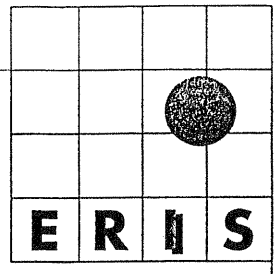
TAXA	
COUNTY: Jeff Davis	
PLANTS	
Alamo beard tongue	*Penstemon alamosensis*
Chicos agave	*Agave glomeruliflora*
Dense cory cactus	*Coryphantha dasyacantha dasyacantha*
Desert night-blooming cereus	*Cereus greggii* var. *greggii*
Fringed paintbrush	*Castilleja ciliata*
Hardtoe seepweed	*Suaeda duripes*
Hinckley's brickellbush	*Brickellia brachyphylla* var. *hinckleyi*
Hinckley's jacob's-ladder	*Polemonium pauciflorum* ssp. *hinckleyi*
Long spur columbine	*Aquilegia longissima*
Many-flowered unicorn plant	*Proboscidea spicata*
Robert's stonecrop	*Sedum robertsianum*
Sandhill goosefoot	*Chenopodium cycloides*
Small fryxell wort	*Fryxellia pygmaea*
Standley whitlow-grass	*Draba standleyi*
Texas purple spike	*Hexalectric warnockii*
Withered woolly milk-vetch	*Astragalus mollissimus marcidus*
INVERTEBRATES	
Brune's tryonia	*Tryonia brunei*
Davis County springsnail	*Fontelicella davisi*
Diminutive amphipod	*Gammarus hyalleloides*
Phantom Lake cave snail	*Cochliopa texana*
Phantom tryonia (=Cheatum's snail)	*Tryonia cheatumi*
Texas minute moss beetle	*Limnebius texanus*
BIRDS	
Baird's sparrow	*Ammodramus bairdii*
Ferruginous hawk	*Buteo regalis*
Loggerhead shrike	*Lanius ludovicianus*
Northern goshwak	*Acciptiter gentilis*
Western burrowing owl	*Athene cunicularia hypugea*
MAMMALS	
Arizona black-tailed prairie dog	*Cynomys ludovicianus arizonensis*
Davis Mountain cottontail rabbit	*Sylvilagus floridanus robustus*
Davis Mountain pocket gopher	*Thomomys umbrinus texensis*
Limpia southern pocket gopher	*Thomomys umbrinus limpiae*
Presidio mole	*Scalopus aquaticus texanus*
Yellow-nosed cotton rat	*Sigmendon ochrognathus*

var. = variety
spp. = subspecies

Source: USFWS 1997

APPENDIX D

ERIIS Reports



PERTAINING TO:
MARFA 1
TX

REPORT NUMBER:
210315A

PREPARED ON:
12/08/1997

ON BEHALF OF:
Geo-Marine, Inc.
550 E. 15th Street
Plano, TX 75074

If you have any questions or comments regarding this report, please contact ERIIS Customer Service at 1-800-989-0403, locally at 703-834-0600, or fax us at 703-834-0606. Thank you for your order.

NPL
Date of Data: 08/12/1997
Release Date: 08/13/1997
Date on System: 10/03/1997
US Environmental Protection Agency
Office of Solid Waste and Emergency Response
703/603-8881

National Priorities List

The NPL Report is an EPA listing of the nation's worst uncontrolled or abandoned hazardous waste sites. NPL sites are targeted for possible long-term remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. In addition, the NPL Report includes information concerning cleanup agreements between EPA and Potentially Responsible Parties (commonly called Records of Decision, or RODS), any liens filed against contaminated properties, as well as the past and current EPA budget expenditures tracked within the Superfund Consolidated Accomplishments Plan (SCAP).

RCRIS_CA
Date of Data: 07/01/1997
Release Date: 10/24/1997
Date on System: 12/05/1997
US Environmental Protection Agency
Office of Solid Waste and Emergency Response
800/424-9346

Resource Conservation and Recovery Information System - TSD's Subject to Corrective Action

The RCRIS_CA Report contains information pertaining to hazardous waste treatment, storage , and disposal Facilities (RCRA TSD's) which have conducted, or are currently conducting, a corrective action(s) as regulated under the Resource Conservation and Recovery Act. The following information is included within the RCRIS_CA Report:
- Information pertaining to the status of facilities tracked by the RCRA Administrative Action Tracking System (RAATS)
- Inspections & evaluations conducted by federal and state agencies
- All reported facility violations, the environmental statute(s) violated, and any proposed & actual penalties
- Information pertaining to corrective actions undertaken by the facility or EPA
- A complete listing of EPA regulated hazardous wastes which are generated or stored on-site

RCRIS_TS
Date of Data: 07/01/1997
Release Date: 10/24/1997
Date on System: 12/05/1997
US Environmental Protection Agency
Office of Solid Waste and Emergency Response
800/424-9346

Resource Conservation and Recovery Information System - Non-Corrective Action TSD Facilities

The RCRIS_TS Report contains information pertaining to facilities which either treat, store, or dispose of EPA regulated hazardous waste. The following information is also included in the RCRIS_TS Report:

- Information pertaining to the status of facilities tracked by the RCRA Administrative Action Tracking System (RAATS)
- Inspections & evaluations conducted by federal and state agencies
- All reported facility violations, the environmental statute(s) violated, and any proposed & actual penalties
- A complete listing of EPA regulated hazardous wastes which are generated or stored on-site

CERCLIS
Date of Data: 08/12/1997
Release Date: 08/13/1997
Date on System: 10/03/1997
US Environmental Protection Agency
Office of Solid Waste and Emergency Response
703/603-8881

Comprehensive Environmental Response, Compensation, and Liability Information System

The CERCLIS Database is a comprehensive listing of known or suspected uncontrolled or abandoned hazardous waste sites. These sites have either been investigated, or are currently under investigation by the U.S. EPA for the release, or threatened release of hazardous substances. Once a site is placed in CERCLIS, it may be subjected to several levels of review and evaluation, and ultimately placed on the National Priorities List (NPL). In addition to site events and milestone dates, the CERCLIS Report also contains financial information from the Superfund Consolidated Accomplishments Plan (SCAP).

NFRAP
Date of Data: 08/12/1997
Release Date: 08/13/1997
Date on System: 10/03/1997
US Environmental Protection Agency
Office of Solid Waste and Emergency Response
703/603-8881

No Further Remedial Action Planned Sites

The No Further Remedial Action Planned Report (NFRAP), also known as the CERCLIS Archive, contains information pertaining to sites which have been removed from the U.S. EPA's CERCLIS Database. NFRAP sites may be sites where, following an initial investigation, either no contamination was found, contamination was removed quickly without need for the site to be placed on the NPL, or the contamination was not serious enough to require federal Superfund action or NPL consideration.

RCRIS_LG
Date of Data: 07/01/1997
Release Date: 10/24/1997
Date on System: 12/05/1997
US Environmental Protection Agency
Office of Solid Waste and Emergency Response
800/424-9346

Resource Conservation and Recovery Information System - Large Quantity Generators

The RCRIS_LG Report contains information pertaining to facilities which either generate more than 1000kg of EPA regulated hazardous waste per month, or meet other applicable requirements of the Resource Conservation And Recovery Act. The following information is also included in the RCRIS_LG Report:
- Information pertaining to the status of facilities tracked by the RCRA Administrative Action Tracking System (RAATS)
- Inspections & evaluations conducted by federal and state agencies
- All reported facility violations, the environmental statute(s) violated, and any proposed & actual penalties
- Information pertaining to corrective actions undertaken by the

facility or EPA
- A complete listing of EPA regulated hazardous wastes which are generated or stored on-site

RCRIS_SG
Date of Data: 07/01/1997
Release Date: 10/24/1997
Date on System: 12/05/1997
US Environmental Protection Agency
Office of Solid Waste and Emergency Response
800/424-9346

Resource Conservation and Recovery Information System - Small Quantity Generators

The RCRIS_SG Report contains information pertaining to facilities which either generate between 100kg and 1000kg of EPA regulated hazardous waste per month, or meet other applicable requirements of the Resource Conservation And Recovery Act. On advice of the U.S. EPA, ERIIS does not report so-called "RCRA Protective Filers." Protective Filers, commonly called Conditionally Exempt Small Quantity Generators (CESQG's), are facilities that have completed RCRA notification paperwork, but are not, in fact, subject to RCRA regulation. The determination of CESQG status is made by the U.S. EPA. The following information is also included in the RCRIS_SG Report:
- Information pertaining to the status of facilities tracked by the RCRA Administrative Action Tracking System (RAATS)
- Inspections & evaluations conducted by federal and state agencies
- All reported facility violations, the environmental statute(s) violated, and any proposed & actual penalties
- Information pertaining to corrective actions undertaken by the facility or EPA
- A complete listing of EPA regulated hazardous wastes which are generated or stored on-site

ERNS
Date of Data: 08/07/1997
Release Date: 08/15/1997
Date on System: 10/03/1997
US Environmental Protection Agency
Office of Solid Waste and Emergency Response
202/260-2342

Emergency Response Notification System

ERNS is a national computer database system that is used to store information concerning the sudden and/or accidental release of hazardous substances, including petroleum, into the environment. The ERNS Reporting System contains preliminary information on specific releases, including the spill location, the substance released, and the responsible party. Please note that the information in the ERNS Report pertains only to those releases that occured between January 1, 1997 and June 11, 1997.

HWS
Date of Data: 03/31/1997
Release Date: 07/31/1997
Date on System: 10/03/1997
TX Natural Resource Conservation Comm.
Superfund Section
512/239-2141

Texas State Superfund Quarterly Status Report

The Texas State Superfund Report contains information pertaining to potentially hazardous sites which have been placed on the State Priority List by the Texas Natural Resource Conservation Commission (TNRCC).

LRST
Date of Data: 09/23/1997
Release Date: 09/29/1997
Date on System: 10/24/1997
TX Natural Resource Conservation Comm.
Information Resources
512/239-0986

Texas Leaking Petroleum Storage Tanks

The Texas Leaking Petroleum Storage Tank Report is a comprehensive listing of all reported active and inactive leaking aboveground and underground storage tanks located within the State of Texas.

SWF
Date of Data: 09/17/1997
Release Date: 10/01/1997
Date on System: 10/24/1997
TX Natural Resource Conservation Comm.
Information Resources
512/239-6067

Texas Municipal Solid Waste Landfill Report

The Texas Municipal Solid Waste Landfill Report is a comprehensive listing of all facilities that have been issued a permit by the Texas Natural Resource Conservation Commission (TNRCC) to operate a municipal solid waste landfill.

RST
Date of Data: 09/23/1997
Release Date: 09/29/1997
Date on System: 10/24/1997
TX Natural Resource Conservation Comm.
Information Resources
512/239-0986

Texas Petroleum Storage Tanks

The Texas Petroleum Storage Tank Report is a comprehensive listing of all registered active and inactive aboveground and underground storage tanks located within the State of Texas.

ERIIS CORRIDOR STATISTICAL PROFILE
State: TX

ERIIS Report #210315A

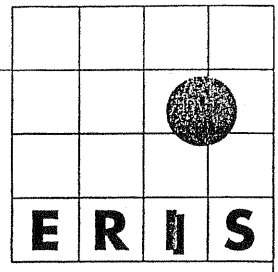
Dec 8, 1997

Site: MARFA 1

, TX

Database	Plotted Sites
NPL	0
RCRIS_CA	0
RCRIS_TS	0
CERCLIS	0
NFRAP	0
RCRIS_LG	0
RCRIS_SG	0
ERNS	0
HWS	0
LRST	0
SWF	0
RST	0
	0

NR in a radius count indicates that the database cannot be reported by this search criteria due to insufficient and/or inaccurate addresses reported by a federal/state agency.



PERTAINING TO:
MARFA 2
TX

REPORT NUMBER:
210316A

PREPARED ON:
12/08/1997

ON BEHALF OF:
Geo-Marine, Inc.
550 E. 15th Street
Plano, TX 75074

If you have any questions or comments regarding this report, please contact ERIIS Customer Service at 1-800-989-0403, locally at 703-834-0600, or fax us at 703-834-0606. Thank you for your order.

ERIIS CORRIDOR STATISTICAL PROFILE
State: TX

ERIIS Report #210316A

Dec 8, 1997

Site: MARFA 2

, TX

Database	Plotted Sites
NPL	0
RCRIS_CA	0
RCRIS_TS	0
CERCLIS	0
NFRAP	0
RCRIS_LG	0
RCRIS_SG	0
ERNS	0
HWS	0
LRST	0
SWF	0
RST	0
	0

NR in a radius count indicates that the database cannot be reported by this search criteria due to insufficient and/or inaccurate addresses reported by a federal/state agency.

PERTAINING TO:
MARFA 3
TX

REPORT NUMBER:
210314A

PREPARED ON:
12/08/1997

ON BEHALF OF:
Geo-Marine, Inc.
550 E. 15th Street
Plano, TX 75074

If you have any questions or comments regarding this report, please contact ERIIS Customer Service at 1-800-989-0403, locally at 703-834-0600, or fax us at 703-834-0606. Thank you for your order.

ERIIS CORRIDOR STATISTICAL PROFILE
State: TX

ERIIS Report #210314A

Dec 8, 1997

Site: MARFA 3

, TX

Database	Plotted Sites
NPL	0
RCRIS_CA	0
RCRIS_TS	0
CERCLIS	0
NFRAP	0
RCRIS_LG	0
RCRIS_SG	0
ERNS	0
HWS	0
LRST	0
SWF	0
RST	0
	0

NR in a radius count indicates that the database cannot be reported by this search criteria due to insufficient and/or inaccurate addresses reported by a federal/state agency.

APPENDIX E

Correspondence

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services Field Office
10711 Burnet Road, Suite 200
Hartland Bank Bldg.
Austin, Texas 78758

DEC - 3 1997

2-15-98-I-243

Eric Verwers
Environmental Resource Planner
U.S. Army Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102-0300

Dear Mr. Verwers,

This responds to your letter, dated November 3, 1997, requesting input for an environmental assessment you are preparing for a proposed road improvement 14 project along the U.S. - Mexican border. The environmental assessment is being prepared for the Joint Task Force Six.

As you requested, attached is an updated list of threatened and endangered species that may occur in Jeff Davis and Presidio counties for your consideration during project planning.

Thank you for requesting input for this project. We would welcome the opportunity to review and provide comments on the environmental assessment, when completed. Please reference the consultation number noted above for future correspondence regarding this project. The point of contact in our office will be Nathan Allan, at (512) 490-0063.

Sincerely,

William Seawell

Acting Field Supervisor

Enclosure

cc: April Lander
Environmental Program Manager
Border Environment Cooperation Commission
Post Office Box 221648
El Paso, Texas 79913

Enclosure

Federally Listed Threatened and Endangered Species

This list represents species that may be found in counties throughout the state. It is recommended that the field station responsible for a project area be contacted if additional information is needed.

DISCLAIMER

This County by County list is based on information available to the U.S. Fish and Wildlife Service at the time of preparation, date on page 1. This list is subject to change, without notice, as new biological information is gathered and should not be used as the sole source for identifying species that may be impacted by a project.

(Edwards Aquifer County) refers to those six counties within the Edwards Aquifer region. The Edwards Aquifer underlies portions of Kinney, Uvalde, Medina, Bexar, Hays, and Comal Counties (Texas). The Service has expressed concern that the combined current level of water withdrawal for all consumers from the Edwards Aquifer adversely affects aquifer-dependent species located at Comal and San Marcos springs during low flows. Deterioration of water quality and/or water withdrawal from the Edwards Aquifer may adversely affect five federally-listed species and three proposed to be listed species.

Migratory Species Common to many or all Counties: Species listed specifically in a county have confirmed sightings. If a species is not listed they may occur as migrants in those counties.

American peregrine falcon	(E)	*Falco peregrinus anatum*
Least tern	(E)	*Sterna antillarum*
Whooping crane	(E)	*Grus americana*
Bald eagle	(T)	*Haliaeetus leucocephalus*
Piping plover	(T)	*Charadrius melodus*
Arctic peregrine falcon	(TSA)	*Falco peregrinus tundrius*
Loggerhead shrike	(SOC)	*Lanius ludovicianus*
White-faced ibis	(SOC)	*Plegadis chihi*

Jeff Davis County

American peregrine falcon	(E)	*Falco peregrinus anatum*
Black-capped vireo	(E)	*Vireo atricapillus*
Least tern	(E)	*Sterna antillarum*
Northern aplomado falcon	(E)	*Falco femoralis septentrionalis*
Southwestern willow flycatcher	(E)	*Empidonax traillii extimus*
Comanche Springs pupfish	(E)	*Cyprinodon elegans*
Pecos gambusia	(E)	*Gambusia nobilis*

Little Aguja pondweed	(E)	*Potamogeton clystocarpus*
Bald eagle	(T)	*Haliaeetus leucocephalus*
Mexican spotted owl	(T)	*Strix occidentalis lucida*
Mountain plover	(C)	*Charadrius montanus*
Shinner's tickle-tongue	(C)	*Zanthoxylum parvum*
Ojinaga ringstem	(P/C)	*Anulocaulis reflexus*
Watson's false clappia-bush	(P/C)	*Pseudoclappia watsonii*
Texas false saltgrass	(P/C)	*Allolepsis texana*
Ferruginous hawk	(SOC)	*Buteo regalis*
Northern gray hawk	(SOC)	*Buteo nitidus maximus*
Northern goshawk	(SOC)	*Accipiter gentilis*
Western burrowing owl	(SOC)	*Athene cunicularia hypugea*
White-faced ibis	(SOC)	*Plegadis chihi*
Limpia Creek pocket gopher	(SOC)	*Thomomys umbrinus texensis*
Davis Mountain cottontail rabbit	(SOC)	*Sylvilagus floridanus robustus*
Limpia southern pocket gopher	(SOC)	*Thomomys umbrinus limpiae*
Presidio mole	(SOC)	*Scalopus aquaticus texanus*
Texas horned lizard	(SOC)	*Phrynosoma cornutum*
Texas minute moss beetle	(SOC)	*Limnebius texanus*
Diminutive amphipod	(SOC)	*Gammarus hyalleloides*
Brune's tryonia	(SOC)	*Tryonia brunei*
Davis County springsnail	(SOC)	*Fontelicella davisi*
Phantom Lake cave snail	(SOC)	*Cochliopa texana*
Phantom tryonia (=Cheatum's snail)	(SOC)	*Tryonia cheatumi*
Dense cory cactus	(SOC)	*Coryphantha dasyacantha dasyacantha*
Desert night-blooming cereus	(SOC)	*Cereus greggii* var. *greggii*
Fringed paintbrush	(SOC)	*Castilleja ciliata*
Hinckley's jacob-ladder	(SOC)	*Polemonium pauciflorum* ssp. *hinckleyi*
Hinckley's brickelbush	(SOC)	*Brickellia brachyphylla* var. *hinckleyi*
Livermore sandwort	(SOC)	*Arenaria livermorensis*
Livermore sweet-cicely	(SOC)	*Osmorhiza mexicana* ssp. *bipatriata*
Long spur columbine	(SOC)	*Aquilegia longissima*
Many-flowered unicorn plant	(SOC)	*Proboscidea spicata*
Sandhill goosefoot	(SOC)	*Chenopodium cycloides*
Standley whitlow-grass	(SOC)	*Draba standleyi*
Texas purple spike	(SOC)	*Hexalectris warnockii*
Withered wooly milk-vetch	(SOC)	*Astragalus mollissimus marcidus*
Young's snowbell	(SOC)	*Styrax youngae*

Presidio County

American peregrine falcon	(E)	*Falco peregrinus anatum*
Northern aplomado falcon	(E)	*Falco femoralis septentrionalis*
Mexican long-nosed bat	(E)	*Leptonycteris nivalis*
Southwestern willow flycatcher	(E)	*Empidonax traillii extimus*

Lloyd's hedgehog cactus	(E)	*Echinocereus lloydii*
Hinckley oak	(T)	*Quercus hinckleyi*
Lloyd's Mariposa cactus	(T)	*Echinomastus mariposensis*
Ojinaga ringstem	(P/C)	*Anulocaulis reflexus*
Texas false saltgrass	(P/C)	*Allolepsis texana*
Ferruginous hawk	(SOC)	*Buteo regalis*
Western burrowing owl	(SOC)	*Athene cunicularia hypugea*
Gray-checkered whiptail	(SOC)	*Cniemidophorus dixoni*
Big Bend mud turtle	(SOC)	*Kinosternon hirtipes murrayi*
Texas horned lizard	(SOC)	*Phrynosoma cornutum*
Davis Mountain cottontail rabbit	(SOC)	*Sylvilagus floridanus robustus*
Greater western mastiff bat	(SOC)	*Eumops perotis californicus*
Presidio mole	(SOC)	*Scalopus aquaticus texanus*
Blue sucker	(SOC)	*Cycleptus elongatus*
Chihuahua shiner	(SOC)	*Notropis chihuahua*
Conchos pupfish	(SOC)	*Cyprinodon eximius*
Mexican stoneroller	(SOC)	*Campostoma ornatum*
Proserpine shiner	(SOC)	*Cyprinella proserpina*
Rio Grande shiner	(SOC)	*Notropis jemezanus*
Bushy wild-buckwheat	(SOC)	*Eriogonum suffruticosum*
White column cory cactus	(SOC)	*Coryphantha albicolumnaria*Contra
yerba	(SOC)	*Pediomelum pentaphyllum*
Cylinder spikerush	(SOC)	*Eleocharis cylindrica*
Desert night-blooming cereus	(SOC)	*Cereus greggii* var. *greggii*
Duncan's cory cactus	(SOC)	*Coryphantha duncanii*
Fresno Creek thelypody	(SOC)	*Thelypodium tenue*
Golden-spine hedgehog cactus *neocapillus*	(SOC)	*Echinocereus chloranthus* var.
Hard-spined pincushion cactus *durispina*	(SOC)	*Coryphantha strobiliformis* var.
Hinckley's columbine	(SOC)	*Aquilegia chrysantha hinckleyana*
Long spur columbine	(SOC)	*Aquilegia longissima*
Many-flowered unicorn plant	(SOC)	*Proboscidea spicata*
Manystem spiderflower	(SOC)	*Cleome multicaulis*
Perennial caltrop	(SOC)	*Kallstroemia perennans*
Sierra Vieja brickelbush	(SOC)	*Brickellia viejensis*
Swallow spurge	(SOC)	*Chamaesyce golondrina*
Trans-Pecos maidenbush	(SOC)	*Andrachne arida*
Withered wooly milk-vetch	(SOC)	*Astragalus mollissimus marcidus*
Presidio County springsnail	(SOC)	*Fontelicella metcalfi*

E	=	Species in danger of extinction throughout all or a significant portion of its range.
T	=	Species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
C	=	Species for which the Service has on file enough substantial information to warrant listing as threatened or endangered.
P/	=	Proposed ...
P/T	=	Species proposed to be listed as threatened.
TSA	=	Threatened due to similarity of appearance.
SOC	=	Species for which there is some information evidence of vulnerability, but not enough data to support listing at this time.

DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
El Paso Regulatory Office
P.O. Box 6096
FORT BLISS, TEXAS 79906-6096
FAX (915) 568-1348

December 24, 1997

REPLY TO
ATTENTION OF:

Operations Division
Regulatory Branch

Mr. Tom Ball
Geo-Marine, Inc.
550 East Fifteenth Street
Plano, Texas 75074

Dear Mr. Ball:

This is in reference to your letter dated December 23, 1997 regarding the proposed JTF-6 Marfa Area Project in Presidio and Jeff Davis Counties, Texas (Action No. 1997 50165).

The Corps of Engineers has published Nationwide Permits pursuant to Section 404 of the Clean Water Act (33 CFR 330). Nationwide Permit No. 3 authorizes discharges of dredged or fill materials into waters of the United States for maintenance and Nationwide Permit No. 14 authorizes discharges of dredged or fill material into waters of the United States for road crossings. Summaries of Nationwide Permits No. 3 and No. 14 and a brochure describing the Corps regulatory program are enclosed for your information.

The JTF-6 Marfa Area Project can be carried out under authority of these nationwide permits. The permittee must insure compliance with all conditions of the permit, including submittal of the enclosed Compliance Certification required by General Condition No. 14.

General Condition No. 11 requires that no activity is authorized under any Nationwide Permit which is likely to jeopardize the continued existence of a listed or proposed threatened or endangered species, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. We have determined that the proposed work, as described, will have no affect on any listed or proposed endangered or threatened species or its critical habitat.

Any discharge of dredged or fill material into wetlands requires notification to this office (see General Condition 13 of Nationwide Permit No. 14). There does not appear to be any

wetland involvement in the project. Notification is also required if you combine this nationwide permit with another nationwide permit No. 12 through 40. The JTF-6 Marfa Area Project will not have such a combination. You cannot combine this nationwide permit with Nos. 18 or 26 for the purpose of increasing the footprint of the road crossing.

This verification will be valid for 2 years unless the nationwide permit is modified, reissued or revoked. The verification will remain valid if, during that time, the nationwide permit is reissued without modification or the activity complies with any subsequent modification of the nationwide permit authorization. If the nationwide permit authorization expires, is suspended, revoked, or modified such that the activity would no longer comply with the terms and conditions of the nationwide permit, the provisions of 33 CFR 330.6(b) will apply.

If you have any questions regarding these regulations, please feel free to write or call me at (915) 568-1359.

Sincerely,

Daniel Malanchuk
Chief, El Paso
Regulatory Office

4 Enclosures
1. Nationwide Permit No. 3 Summary
2. Nationwide Permit No. 14 Summary
3. Brochure
4. Compliance Certification form

Copies furnished w/cy incoming:

CESPA-OD-R

Certification of Compliance
with Department of the Army Nationwide Permit

Action Number: **1997 50165**

Name of Permittee: **JTF-6**

Nationwide Permit: **No. 3, Maintenance and**
No. 14, Road Crossings

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

District Engineer
Albuquerque District, Corps of Engineers
ATTN: Regulatory Branch
4101 Jefferson Plaza, NE
Albuquerque, New Mexico 87109-3435

Please note that your permitted activity is subject to a compliance inspection by an Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Please enclose photographs showing the completed project (if available).

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Date Work Started _____

Date Work Completed _____

_____ _____
Date Signature of Permittee

Caring for Our Nation's Waters

U.S. Army Corps of Engineers Regulatory Program

Water is one of our nation's most valuable resources. It is becoming increasingly important that we protect the quality of our inland waters and wetlands for the use and benefit of future generations.

This brochure discusses the regulatory program of the U.S. Army Corps of Engineers: what it is, how it began, how it may affect you and what you as a concerned citizen can do to help.

If you are planning work in an arroyo, river, stream, or wetland, a Corps permit (Section 10 or Section 404) may be required.

The program provides for the consideration of all concerns of the public -- environmental, social and economic -- in the Corps' decision-making process to either issue or deny permits. As part of its responsibility to protect water quality, the Corps of Engineers Section 404 permit program extends to many areas that were not regulated prior to the Clean Water Act.

The purpose of the Section 404 program is to insure that the biological and chemical quality of our nation's waters is protected from irresponsible and unregulated discharges of dredged or fill material that could permanently alter or destroy these valuable resources.

You are urged to understand and support this program.

Corps of Engineers Involvement

The Corps' permit program is not new. When it began in 1886, its purpose was principally to avoid obstructions in navigable waters. In response to changing environmental, social and economic conditions, the scope has been broadened. Sections 9 and 10 of the River and Harbor Act of 1899 were established to regulate dams, dikes, and obstruction or alteration of navigable waters of the United States.

The Corps of Engineers regulatory function was expanded when Congress passed the Federal Water Pollution Control Act Amendments of 1972. Section 404 of the Act established a permit program to be administered by the Corps of Engineers to regulate the discharge of dredged or fill material into waters of the United States. The Act, renamed the Clean Water Act, was further amended in 1977 to provide exemptions, general permits and program turnover to states having approved programs.

The Corps has published regulations in the Code of Federal Regulations (33 CFR, Parts 320-330) to administer these laws.

Activities Requiring Permits

A Corps permit is required if you plan to locate a structure or discharge dredged or fill material, including excavation, in waters or navigable waters of the United States. This information is directed to those individuals, companies, corporations, and government agencies planning construction activities in a river, stream, lake or wetland within the jurisdiction of the Corps of Engineers.

Examples of regulated activities are materials excavated or placed in a waterway or wetland for any purpose including: commercial, industrial or recreational construction; roadfills and causeways where portions of the construction are in waters or wetlands; dams and dikes; and protection devices such as levees, groins, riprap and other bank stabilization.

Waters of the United States

Waters of the United States are administratively defined as (1) the traditional "navigable waters of the United States" including adjacent wetlands; (2) all interstate waters including interstate wetlands; (3) all other waters such as interstate lakes, rivers, streams (including intermittent streams), prairie potholes, mudflats, playa lakes, etc.; (4) all impoundments of these waters; (5) tributaries of the above listed waters; and (6) wetlands adjacent to the above waters. Section 404 permits are required for construction activities in these waters.

Navigable waters are defined as waters that have been used in the past, are now used or susceptible to use as a means to transport interstate or foreign commerce up to the head of navigation. Section 10 and/or Section 404 permits are required for construction activities in these waters.

"Wetlands" are areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

The landward regulatory limit for non-tidal waters (in the absence of adjacent wetlands) is the ordinary high water mark. The ordinary high water mark is the line on the shores established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas.

Exempted Activities

There are a few activities which involve placement of fill or excavation in a waterway that are not subject to the Section 404 regulatory program. These exempted activities are briefly described here. The fill must not change the use of the water and the flow must not be impaired.

1. Normal farming, silviculture and ranching activities such as plowing, seeding cultivating, minor drainage and harvesting.

2. Maintenance or emergency repair of a currently serviceable structure such as dams, riprap, abutments, and levees. The original design may not be changed.

3. Maintenance or construction of stock ponds or irrigation ditches. Maintenance (not construction) of drainage ditches. Discharges associated with irrigation facilities are included.

4. Construction of temporary sedimentation basins at construction sites if fill material is not placed in waters of the United States.

5. Activities for which a state has an approved program under Section 208 of the Clean Water Act for non-point pollution sources.

6. Construction or maintenance of farm roads, forest roads or temporary mining roads. Best management practices must be followed to reduce flow pattern impairment and aquatic impacts (see regulations for more information).

Regional Permits

Regional permits are issued by the District Engineer for a general category of fill activities when (1) the activities are similar in nature and cause minimal environmental impact (both individually and cumulatively), and (2) the regional permit reduces duplication of regulatory control by State and Federal agencies.

Contact the Albuquerque District Corps of Engineers for information regarding regional permits in this area.

Pre-Application Consultation

You are encouraged to contact the Albuquerque District Corps of Engineers for proposed work in waters in this jurisdictional area (see map inside).

Exemptions, nationwide, regional and individual permit requirements will be reviewed. By discussing all information prior to application submittal, your application will be processed more efficiently.

An official determination as to the need for a Department of the Army permit will be provided on request.

Application for an Individual Permit

An individual Section 404 permit will be required for placement of dredged or fill material, including excavation, in waters of the United States if the project is not exempted from the Section 404 program and does not fall under one of the nationwide or regional permits.

If an individual permit is required, an application form should be completed. This application is available from the Corps of Engineers. Information needed includes (1) drawings (size 8½" X 11") sufficient for others to understand your project; (2) location, purpose, types and quantities of fills, and intended use; (3) expected start and completion dates; (4) names and addresses of adjoining landowners; and (5) location and dimensions of adjacent structures.

Individual Permits

Upon receipt of your application for a Section 404 permit, a public notice is issued to all known interested persons.

Historical/archeological impacts and effects on endangered species and critical habitat are reviewed. An environmental assessment is prepared to further evaluate the project's impact.

Water quality certification is requested from the appropriate state, federal, or tribal agency. Comments are received from interested individuals, groups, and government agencies. A public hearing may be held to acquire information and allow the public an opportunity to present their views.

In evaluating a permit application, the Corps of Engineers thoroughly analyzes the impacts of the proposed activity on the public interest.

Consideration is given to many factors, including: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion, recreation, water supply and conservation, water quality, energy needs, safety, food production, and, in general, the needs and welfare of the people. Individual and cumulative impacts are evaluated.

The decision to issue a permit is based on the benefits which may accrue from the proposed project. Benefits are weighed against foreseeable detriments, and a permit is issued only when its issuance is found to be in the public interest.

After evaluating the above considerations, the District Engineer makes the final decision to issue or deny the permit.

Processing time usually takes less than 120 days unless a public hearing is required or an environmental impact statement must be prepared.

Nationwide Permits

A nationwide permit is a form of general permit authorizing a category of activities throughout the nation. These permits are valid only if their terms and conditions are met. If the conditions cannot be met, a regional or individual permit will be required. Summaries of the nationwide permits are available. A few of the nationwide permits commonly used in this region are briefly listed here:

NWP 3, Maintenance. Repair, rehabilitation or replacement of a structure of fill which was previously authorized and currently serviceable. The structure must not be significantly changed.

NWP 12, Utility Line backfill and bedding, including outfall and intake structures provided there is no change in preconstruction contours. Materials from the trench may be used as a cofferdam.

NWP 13, Bank Stabilization projects necessary for erosion prevention less than 500 feet long containing less than an average of one cubic yard of material per running foot. Materials may not exceed the amount needed for erosion protection, fill is not to be placed in wetland areas or in a manner that impairs water flow, and the activity must be a single and complete project. Projects of longer length or greater fill quantities will be considered for authorization under the Notification general condition. Materials that will erode may not be used.

NWP 14, Road Crossing fills (temporary or permanent) limited to a filled area of no more than 1/3 acre. Less than a total of 200 linear feet of fill may occur in wetlands (wetland fills require advanced written Notification to the District Engineer). This NWP may not be combined with NWP 18 or NWP 26. The crossing must be bridged, culverted, or otherwise designed to prevent restriction of flows.

NWP 18, Minor Discharges of less than 25 cubic yards (fills exceeding 10 cubic yards require advance written Notification to the District Engineer). The discharge may not cause a loss of more than 1/10 acre of wetlands. The activity must be part of a single and complete project and may not divert flows.

NWP 25, Structural Discharge of materials such as concrete, sand, rock, etc. into tightly sealed forms or cells where the structural member is not otherwise regulated.

NWP 26, Discharges of dredged or fill material into **Headwaters and Isolated Waters** are authorized providing the discharge doesn't cause the loss of more than 3 acres of waters of the United States nor a cause the loss of more than 500 linear feet of the stream bed. Discharges causing a loss of greater than 1/3 acre of waters of the United States require advanced written notification to the District Engineer. For discharges causing a loss of 1/3 acre or less of waters of the United States, the permittee must submit a report within 30 days of completion of the work. "Loss" includes the filled area plus waters of the United States that are adversely affected by flooding, excavation or drainage.

"Headwaters" means the point where the average annual stream flow is 5 cubic feet per second (cfs). For an intermittent stream, the headwater point is where the stream flows at or above 5 cfs 50 percent of the time. "Isolated waters" involve waters that are not part of a tributary system to interstate waters or navigable waters of the United States. Maps are available which show these streams. Note: This permit expires December 13, 1998.

NWP 36, Boat Ramps. The total discharge into waters of the United States must be less than 50 cubic yards of concrete, rock, gravel in forms or as pre-cast slabs. Width must be under 20 feet, base material of crushed stone or gravel, excavated material is limited to site preparation, and no material may be placed in wetlands. All excavated material must be removed to uplands. Dredging requires an additional permit.

General Conditions for Use of Nationwide Permits

You must comply with the following conditions when using a nationwide permit.

1. The activity may not cause more than a minimal adverse effect on **navigation**.
2. Any structure or fill must be **properly maintained**.
3. Appropriate **erosion and siltation controls** must be used and maintained.
4. The activity may not substantially disrupt **aquatic live movements**.
5. Heavy **equipment** in wetlands must be placed on mats or use other measures to minimize soil disturbance.
6. The activity must comply with any **regional or case-by-case conditions** added by the Corps. There is a regional condition in Colorado.
7. Fill is not to be placed in a **Wild or Scenic River** or "study river."
8. Construction or operations of the activity may not impair reserved **tribal rights** such as water rights and treaty fishing and hunting rights.
9. In certain states, an individual **water quality certification** must be obtained. This is a requirement in New Mexico.
10. In certain states, an individual **coastal zone management** consistency concurrence must be obtained.
11. The activity may not jeopardize threatened or **endangered species** or destroy critical habitat.
12. You must notify the Corps of effects to listed or eligible National Register **historic properties**. You should immediately notify the Corps of unlisted or eligible historic properties encountered before or during the work.
13. When required by the terms of a nationwide permit, the prospective permittee must provide advance written **notification** to the District Engineer, and may not begin work until notified by the District Engineer that (a) the work may proceed, (b) that an individual permit is required, or (c) 30 days (45 days for NWP 26) have passed after the Corps receives a complete notification. Check with the Regulatory Office regarding submittal information required.

WATER QUALITY CERTIFICATION INFORMATION SUMMARY FOR NATIONWIDE PERMIT USE IN THE ALBUQUERQUE DISTRICT

Section 401 water quality certification for nationwide permits (NWPs) in the Albuquerque District has been variously issued, waived, denied, or conditioned by certifying agencies. Review the following list to determine the status of water quality certification for the type of NWP and area of use. This list is a summary of information received from the certifying agencies; the specific requirements are available in each agency's water quality certification. You must obtain any required individual water quality certification from the appropriate water quality certification authority for your project area prior to construction under the specified nationwide permits:

State of Colorado. Water quality certification for all nationwide permits is issued by State of Colorado statute.

State of New Mexico. Issued unconditional certification for NWPs 20, 22, 27, 30, 38, and "incidental" discharges under NWP 18 (e.g., *de minimus* discharges). Conditional certification is issued for NWPs 3-7, 12-19, 21, 23, 25-26, 28-29, 31-37, and 40. If your project is in or near a perennial surface water, perennial reach of an interrupted or intermittent surface water, or wetland greater than 1/3 acre, you must obtain individual water quality certification from the New Mexico Environment Department to use these conditionally certified NWPs. Any use of NWP 18 exceeding 1/10 cu yd will require an individual water quality certification. NWP 12 is further conditioned requiring all utility lines to be installed perpendicular or as close to perpendicular as possible to a channel to minimize disturbance; any crossing of wetlands or streams must be justified and alternatives explored to avoid construction or maintenance in waters of the State; and the project must be restored to pre-construction contours and stabilized with native vegetation. Contact:

New Mexico Environment Department
Surface Water Quality Bureau
Harold Runnels Building, 1190 St. Francis Drive
P.O. Box 26110
Santa Fe, New Mexico 87502 Phone: (505) 827-0106

State of Texas. Issued conditional water quality certification (Standard Provisions) for all NWP use in Texas. Additional Conditions are included for NWPs 3, 7, 13, 16, 19, 26, 31, and 35. Copies of the conditions may be obtained from the Albuquerque District or from the Texas Natural Resource Conservation Commission. Contact:

Texas Natural Resource Conservation Commiss...
P.O. Box 13087
Austin, Texas 78711-3087 Phone: (512) 239-1000

Pueblo of Sandia lands. Requires individual water quality certification for use of any nationwide permit on tribal lands. Contact:

Environmental Director
Pueblo of Sandia
Box 6008
Bernalillo, New Mexico 87004 Phone: (505) 867-4533

Santa Clara Pueblo lands. Water quality certification is denied without prejudice for NWPs 6-7, 12-14, 18-19, 23, 25-26, 29, 30, 33, 36, and 40. You must obtain an individual water quality certification for your project to use these NWPs on Pueblo lands. Contact:

Santa Clara Pueblo - Office of Environmental Affairs
Surface Water Division
P.O. Box 580
Espanola, New Mexico 87532 Phone: (505)753-7326, ext. 232

Picuris Pueblo lands. Requires individual water quality certification for use of any nationwide permit on Pueblo lands. Contact:

Environment Department
Picuris Pueblo
P.O. Box 127
Penasco, New Mexico 87553 Phone: (505) 587-2519

San Juan Pueblo lands. Requires individual water quality certification for use of any nationwide permit on Pueblo lands. Contact:

Office of Environmental Affairs
San Juan Pueblo
P.O. Box 1099
San Juan Pueblo, New Mexico 87566 Phone: (505) 852-4212

Pueblo of Isleta lands. Water quality certification for all NWPs is denied. You must obtain an individual water quality certification to use any NWP on Pueblo lands. Contact:

Water Quality Program
Pueblo of Isleta
P.O. Box 1270
Isleta, New Mexico 87022 Phone: (505) 869-2710

Nambe Pueblo lands. Water quality certification for all NWPs is denied. You must obtain an individual water quality certification to use any NWP on Pueblo lands. Contact:

Nationwide Permit Summary

U.S. Army Corps of Engineers
Albuquerque District

MAINTENANCE

(NWP Final Notice, 61 FR 65914, para. 3)

he repair, rehabilitation, or replacement of any previously authorized, currently serviceable, structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area including those due to changes in materials, construction techniques, or current construction codes or safety standards which are necessary to make repair, rehabilitation, or replacement are permitted, provided the environmental effects resulting from such repair, rehabilitation, or replacement are minimal. Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction. This NWP authorizes the repair, rehabilitation, or replacement of those structures destroyed by storms, floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced or under contract to commence within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the District Engineer, provided the permittee can demonstrate funding, contract, or other similar delays. Maintenance dredging and beach restoration are not authorized by this NWP. (Sections 10 and 404)

NATIONWIDE PERMIT CONDITIONS

General Conditions: The following general conditions must be followed in order for any authorization by a NWP to be valid:

1. **Navigation.** No activity may cause more than a minimal adverse effect on navigation.

2. **Proper Maintenance.** Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.

3. **Erosion and Siltation Controls.** Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.

4. **Aquatic Life Movements.** No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water.

5. **Equipment.** Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.

6. **Regional and Case-by-Case Conditions.** The activity must comply with any regional conditions which may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state or tribe in its section 401 water quality certification. **Note:** To date, one regional condition has been added to this permit (see condition #3, Section 404 only conditions).

7. **Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely effect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service.)

8. **Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. **Water Quality Certification.** In certain states, an individual Section 401 water quality certification must be obtained or waived (see 33 CFR 330.4(c)). **Note for work in Albuquerque District:** Required water quality certification for non-tribal lands in Colorado was issued by the State of Colorado. The State of New Mexico, State of Texas, EPA Region 8, EPA Region 6, and tribal certifying authorities have variously issued, conditionally issued, or denied water quality certification for this nationwide permit. An information summary sheet is enclosed. You must insure compliance with the applicable water quality certification requirements for your project.

10. **Coastal Zone Management.** In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived (see Section 330.4(d)). **Note:** Not applicable in Albuquerque District.

11. **Endangered Species.**

(a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or critical habitat might be affected or is in the vicinity of the project, and shall not begin work on the activity until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized.

(b) Authorization of an activity by a nationwide permit does not authorize the "take" of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal "takes" of protected species are in violation of the Endangered Species Act. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. Fish and Wildlife Service and National Marine Fisheries Service or their world wide web pages at

http://www.fws.gov/~r9endspp/endspp.html and

http://kingfish.ssp.mnfs.gov/tmcintyr/prot_res.html

respectively.

12. **Historic Properties.** No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the DE has complied with the provisions of 33 CFR part 325, appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)).

13. **Notification:**

(a) ***Timing.*** Where required by the terms of the NWP, the prospective permittee must notify the District Engineer with a Pre-Construction Notification (PCN) as early as possible and shall not begin the activity:

(1) Until notified by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer; or

(2) If notified by the District or Division Engineer that an individual permit is required; or

(3) Unless 30 days (or 45 days for NWP 26 only) have passed from the District Engineer's receipt of the notification and the prospective permittee has not received notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) ***Contents of Notification.*** The notification must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) Brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s) or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity; and

(4) For NWPs 14, 18, 21, 26, 29, 34, and 38, the PCN must also include a delineation of affected special aquatic sites, including wetlands (see paragraph 13(f));

(5) For NWP 21--Surface Coal Mining Activities, the PCN must include an OSM or state approved mitigation plan.

(6) For NWP 29--Single-Family Housing, the PCN must also include:

(i) Any past use of this NWP by the individual permittee and/or the permittee's spouse;

(ii) A statement that the single-family housing activity is for a personal residence of the permittee;

(iii) A description of the entire parcel, including its size, and a delineation of wetlands. For the purpose of this NWP, parcels of land measuring 0.5 acre or less will not require a formal on-site delineation. However, the applicant shall provide an indication of where the wetlands are and the amount of wetlands that exists on the property. For parcels greater than 0.5 acre in size, a formal wetland delineation must be prepared in accordance with the current method required by the Corps.

(See paragraph 13(f));

(iv) A written description of all land (including, if available, legal descriptions) owned by the prospective permittee and/or the prospective permittee's spouse, within a one mile radius of the parcel, in any form of ownership (including any land owned as a partner, corporation, joint tenant, co-tenant, or as a tenant-by-the-entirety) and any land on which a purchase and sale agreement or other contract for sale or purchase has been executed;

(7) For NWP 31--Maintenance of Existing Flood Control Projects, the prospective permittee must either notify the District Engineer with a Pre-Construction Notification (PCN) prior to each maintenance activity or submit a five year (or less) maintenance plan. In addition, the PCN must include all of the following:

(i) Sufficient baseline information so as to identify the approved channel depths and configurations and existing facilities. Minor deviations are authorized, provided that the approved flood control protection or drainage is not increased;

(ii) A delineation of any affected special aquatic sites, including wetlands; and,

(iii) Location of the dredged material disposal site.

(8) For NWP 33--Temporary Construction, Access, and Dewatering, the PCN must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources.

(c) ***Form of Notification.*** The standard individual permit application form (Form ENG 4345) may be used as the notification but must clearly indicate that it is a PCN and must include all of the information required in (b) (1)-(7) of General Condition 13. A letter may also be used.

(d) ***District Engineer's Decision.*** In reviewing the pre-construction notification for the proposed activity, the District Engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. The prospective permittee may, optionally, submit a proposed mitigation plan with the pre-construction notification to expedite the process and the District Engineer will consider any optional mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed work are minimal. If the District Engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects are minimal, the District Engineer will notify the permittee and include any conditions the DE deems necessary.

Any mitigation proposal must be approved by the District Engineer prior to commencing work. If the prospective permittee elects to submit a mitigation plan, the District Engineer will expeditiously review the proposed mitigation plan, but will not commence a second 30-day (or 45-day for NWP 26) notification procedure. If the net adverse effects of the project (with the mitigation proposal) are determined by the District Engineer to be minimal, the District Engineer will provide a timely written response to the applicant stating that the project can proceed under the terms and conditions of the nationwide permit.

If the District Engineer determines that the adverse effects of the proposed work are more than minimal, then he will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submitting a mitigation proposal that would reduce the adverse effects to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions.

(e) ***Agency Coordination.*** The District Engineer will consider any comments from Federal and State agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

[Note: Paragraphs (e)(i), (ii), (iii) of the NWP Final Notice (61 FR 65921) are deleted here for brevity. These paragraphs provide specifics regarding the Corps' internal coordination with agencies.]

(f) ***Wetlands Delineations.*** Wetland delineations must be prepared in accordance with the current method required by the Corps. For NWP 29 see paragraph (b)(6)(iii) for parcels less than 0.5 acres in size. The permittee may ask the Corps to delineate the special aquatic site. There may be some delay if the Corps does the delineation. Furthermore, the 30-day period (45 days for NWP 26) will not start until the wetland delineation has been completed and submitted to the Corps, where appropriate.

(g) ***Mitigation.*** Factors that the District Engineer will consider when determining the acceptability of appropriate and practicable mitigation include, but are not limited to:

(i) To be practicable, the mitigation must be available and capable of being done considering costs, existing technology, and logistics in light of the overall project purposes;

(ii) To the extent appropriate, permittees should consider mitigation banking and other forms of mitigation including contributions to wetland trust funds, "in lieu fees" to organizations such as The Nature

Conservancy, state or county natural resource management agencies, where such fees contribute to the restoration, creation, replacement, enhancement, or preservation of wetlands. Furthermore, examples of mitigation that may be appropriate and practicable include but are not limited to: Reducing the size of the project; establishing wetland or upland buffer zones to protect aquatic resource values; and replacing the loss of aquatic resource values by creating, restoring, and enhancing similar functions and values. In addition, mitigation must address wetland impacts, such as functions and values, and cannot be simply used to offset the acreage of wetland losses that would occur in order to meet the acreage limits of some of the NWPs (e.g., for NWP 26, 5 acres of wetlands cannot be created to change a 6-acre loss of wetlands to a 1 acre loss; however, 2 created acres can be used to reduce the impacts of a 3-acre loss.).

14. **Compliance Certification**. Every permittee who has received a Nationwide permit verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter and will include: a. A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions; b. A statement that any required mitigation was completed in accordance with the permit conditions; c. The signature of the permittee certifying the completion of the work and mitigation.

15. **Multiple Use of Nationwide Permits**. In any case where any NWP number 12 through 40 is combined with any other NWP number 12 through 40, as part of a single and complete project, the permittee must notify the District Engineer in accordance with paragraphs a, b, and c on the "Notification" General Condition number 13. Any NWP number 1 through 11 may be combined with any other NWP without notification to the Corps, unless notification is otherwise required by the terms of the NWPs. As provided at 33 CFR 330.6(c) two or more different NWPs can be combined to authorize a single and complete project. However, the same NWP cannot be used more than once for a single and complete project.

Section 404 Only Conditions: In addition to the General Conditions, the following conditions apply only to activities that involve the discharge of dredged or fill material into waters of the U.S., and must be followed in order for authorization by the NWPs to be valid:

1. **Water Supply Intakes**. No discharge of dredged or fill material may occur in the proximity of a public water supply intake except where the discharge is for repair of the public water supply intake structures or adjacent bank stabilization.

2. **Shellfish Production**. No discharge of dredged or fill material may occur in areas of concentrated shellfish production, unless the discharge is directly related to a shellfish harvesting activity authorized by NWP 4.

3. **Suitable Material**. No discharge of dredged or fill material may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.,) and material discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

4. **Mitigation**. Discharges of dredged or fill material into waters of the United States must be minimized or avoided to the maximum extent practicable at the project site (i.e., on-site), unless the District Engineer approves a compensation plan that the District Engineer determines is more beneficial to the environment than on-site minimization or avoidance measures.

5. **Spawning Areas**. Discharges in spawning areas during spawning seasons must be avoided to the maximum extent practicable.

6. **Obstruction of High Flows**. To the maximum extent practicable, discharges must not permanently restrict or impede the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

7. **Adverse Effects From Impoundments**. If the discharge creates an impoundment of water, adverse effects on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized to the maximum extent practicable.

8. **Waterfowl Breeding Areas**. Discharges into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

9. **Removal of Temporary Fills**. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

[Excerpted from the December 13, 1996 Federal Register, Final Notice of Issuance, Reissuance, and Modification of Nationwide Permits (61 FR 65874)].

CONDITIONS, LIMITATIONS, AND RESTRICTIONS
(Information from 33 CFR 330.4)

1. **General**. A prospective permittee must satisfy all terms and conditions of an NWP for a valid authorization to occur. Some conditions identify a

"threshold" that, if met, requires additional procedures or provisions contained in other paragraphs in this section. It is important to remember that the NWP's only authorize activities from the perspective of the Corps regulatory authorities and that other Federal, state, and local permits, approvals, or authorizations may also be required.

2. **Further Information:**

(a) District Engineers have authority to determine if an activity complies with the terms and conditions of a NWP.

(b) NWP's do not obviate the need to obtain other Federal, state, or local permits, approvals, or authorization required by law.

(c) NWP's do not grant any property rights or exclusive privileges.

(d) NWP's do not authorize any injury to the property or rights of others.

(e) NWP's do not authorize interference with any existing or proposed Federal project.

ADDITIONAL INFORMATION

For additional information concerning the nationwide permits or for a written determination regarding a specific project, please contact the office below:

In New Mexico:

Chief, Regulatory Branch
Albuquerque District, US Army Corps of Engineers
4101 Jefferson Plaza, N.E., Room 313
Albuquerque, NM 87109-3435
Telephone: (505) 342-3283
E-Mail: ceswa-od-r@usace.army.mil

In southeastern Colorado:

Southern Colorado Project Office
720 North Main Street, Room 205
Pueblo, Colorado 81003-3046
Telephone: (719) 543-9459

In southern New Mexico and western Texas:

El Paso Regulatory Office
P.O. Box 6096
Ft. Bliss, Texas 79906-0096
Telephone: (915) 568-1359

Information about the U.S. Army Corps of Engineers regulatory program, including nationwide permits, may also be accessed on our Internet page:

http://www.swa.usace.army.mil/reg/

This nationwide permit is effective February 11, 1997 and expires on February 11, 2002, unless sooner modified, suspended, or revoked.

Summary Version: 2/19/97

U.S. Army Corps of Engineers
Albuquerque District

Nationwide Permit Summary

ROAD CROSSINGS

(NWP Final Notice, 61 FR 65915, para. 14)

Fills for roads crossing waters of the United States (including wetlands and other special aquatic sites) provided the activity meets all of the following criteria:

a. The width of the fill is limited to the minimum necessary for the actual crossing;

b. The fill placed in waters of the United States is limited to a filled area of no more than 1/3 acre. Furthermore, no more than a total of 200 linear feet of the fill for the roadway can occur in special aquatic sites, including wetlands;

c. The crossing is culverted, bridged or otherwise designed to prevent the restriction of, and to withstand, expected high flows and tidal flows, and to prevent the restriction of low flows and the movement of aquatic organisms;

d. The crossing, including all attendant features, both temporary and permanent, is part of a single and complete project for crossing of a water of the United States; and,

e. For fills in special aquatic sites, including wetlands, the permittee notifies the District Engineer in accordance with the "Notification" general condition. The notification must also include a delineation of affected special aquatic sites, including wetlands.

This NWP may not be combined with NWP 18 or NWP 26 for the purpose of increasing the footprint of the road crossing. Some road fills may be eligible for an exemption from the need for a Section 404 permit altogether (see 33 CFR 323.4). Also, where local circumstances indicate the need, District Engineers will define the term "expected high flows" for the purpose of establishing applicability of this NWP. (Sections 10 and 404)

NATIONWIDE PERMIT CONDITIONS

General Conditions: The following general conditions must be followed in order for any authorization by a NWP to be valid:

1. **Navigation.** No activity may cause more than a minimal adverse effect on navigation.

2. **Proper Maintenance.** Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.

3. **Erosion and Siltation Controls.** Appropriate erosion and siltation controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.

4. **Aquatic Life Movements.** No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water.

5. **Equipment.** Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.

6. **Regional and Case-by-Case Conditions.** The activity must comply with any regional conditions which may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state or tribe in its section 401 water quality certification. **Note:** To date, one regional condition has been added to this permit (see condition #3, Section 404 only conditions).

7. **Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely effect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service.)

8. **Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. **Water Quality Certification.** In certain states, an individual Section 401 water quality certification must be obtained or waived (see 33 CFR 330.4(c)). **Note for work in Albuquerque District:** Required water quality certification for non-tribal lands in Colorado was issued by the State of

Colorado. The State of New Mexico, State of Texas, EPA Region 8, EPA Region 6, and tribal certifying authorities have variously issued, conditionally issued, or denied water quality certification for this nationwide permit. An information summary sheet is enclosed. You must insure compliance with the applicable water quality certification requirements for your project.

10. **Coastal Zone Management.** In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived (see Section 330.4(d)). **Note:** Not applicable in Albuquerque District.

11. **Endangered Species.**

(a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or critical habitat might be affected or is in the vicinity of the project, and shall not begin work on the activity until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized.

(b) Authorization of an activity by a nationwide permit does not authorize the "take" of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal "takes" of protected species are in violation of the Endangered Species Act. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. Fish and Wildlife Service and National Marine Fisheries Service or their world wide web pages at http://www.fws.gov/~r9endspp/endspp.html and http://kingfish.ssp.mnfs.gov/tmcintyr/prot_res.html respectively.

12. **Historic Properties.** No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the DE has complied with the provisions of 33 CFR part 325, appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)).

13. **Notification:**

(a) ***Timing.*** Where required by the terms of the NWP, the prospective permittee must notify the District Engineer with a Pre-Construction Notification (PCN) as early as possible and shall not begin the activity:

(1) Until notified by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer; or

(2) If notified by the District or Division Engineer that an individual permit is required; or

(3) Unless 30 days (or 45 days for NWP 26 only) have passed from the District Engineer's receipt of the notification and the prospective permittee has not received notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) ***Contents of Notification.*** The notification must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) Brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s) or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity; and

(4) For NWPs 14, 18, 21, 26, 29, 34, and 38, the PCN must also include a delineation of affected special aquatic sites, including wetlands (see paragraph 13(f));

(5) For NWP 21--Surface Coal Mining Activities, the PCN must include an OSM or state approved mitigation plan.

(6) For NWP 29--Single-Family Housing, the PCN must also include:

(i) Any past use of this NWP by the individual permittee and/or the permittee's spouse;

(ii) A statement that the single-family housing activity is for a personal residence of the permittee;

(iii) A description of the entire parcel, including its size, and a delineation of wetlands. For the purpose of this NWP, parcels of land measuring 0.5 acre or less will not require a formal on-site delineation. However, the applicant shall provide an indication of where the wetlands are and the amount of wetlands that exists on the property. For parcels greater than 0.5 acre in size, a formal wetland delineation must be prepared in accordance with the current method required by the Corps. (See paragraph 13(f));

(iv) A written description of all land (including, if available, legal descriptions) owned by the prospective permittee and/or the prospective permittee's spouse, within a one mile radius of the parcel, in any form of ownership (including any land owned as a partner, corporation, joint tenant, co-tenant, or as a tenant-by-the-entirety) and any land on which a purchase and sale agreement or other contract for sale or purchase has been executed;

(7) For NWP 31--Maintenance of Existing Flood Control Projects, the prospective permittee must either notify the District Engineer with a Pre-Construction Notification (PCN) prior to each maintenance activity or submit a five year (or less) maintenance plan. In addition, the PCN must include all of the following:

(i) Sufficient baseline information so as to identify the approved channel depths and configurations and existing facilities. Minor deviations are authorized, provided that the approved flood control protection or drainage is not increased;

(ii) A delineation of any affected special aquatic sites, including wetlands; and,

(iii) Location of the dredged material disposal site.

(8) For NWP 33--Temporary Construction, Access, and Dewatering, the PCN must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources.

(c) ***Form of Notification***. The standard individual permit application form (Form ENG 4345) may be used as the notification but must clearly indicate that it is a PCN and must include all of the information required in (b) (1)-(7) of General Condition 13. A letter may also be used.

(d) ***District Engineer's Decision***. In reviewing the pre-construction notification for the proposed activity, the District Engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. The prospective permittee may, optionally, submit a proposed mitigation plan with the pre-construction notification to expedite the process and the District Engineer will consider any optional mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed work are minimal. If the District Engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects are minimal, the District Engineer will notify the permittee and include any conditions the DE deems necessary.

Any mitigation proposal must be approved by the District Engineer prior to commencing work. If the prospective permittee elects to submit a mitigation plan, the District Engineer will expeditiously review the proposed mitigation plan, but will not commence a second 30-day (or 45-day for NWP 26) notification procedure. If the net adverse effects of the project (with the mitigation proposal) are determined by the District Engineer to be minimal, the District Engineer will provide a timely written response to the applicant stating that the project can proceed under the terms and conditions of the nationwide permit.

If the District Engineer determines that the adverse effects of the proposed work are more than minimal, then he will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submitting a mitigation proposal that would reduce the adverse effects to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions.

(e) ***Agency Coordination***. The District Engineer will consider any comments from Federal and State agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

[Note: Paragraphs (e)(i), (ii), (iii) of the NWP Final Notice (61 FR 65921) are deleted here for brevity. These paragraphs provide specifics regarding the Corps' internal coordination with agencies.]

(f) ***Wetlands Delineations***. Wetland delineations must be prepared in accordance with the current method required by the Corps. For NWP 29 see paragraph (b)(6)(iii) for parcels less than 0.5 acres in size. The permittee may ask the Corps to delineate the special aquatic site. There may be some delay if the Corps does the delineation. Furthermore, the 30-day period (45 days for NWP 26) will not start until the wetland delineation has been completed and submitted to the Corps, where appropriate.

(g) ***Mitigation***. Factors that the District Engineer will consider when determining the acceptability of appropriate and practicable mitigation

include, but are not limited to:

(i) To be practicable, the mitigation must be available and capable of being done considering costs, existing technology, and logistics in light of the overall project purposes;

(ii) To the extent appropriate, permittees should consider mitigation banking and other forms of mitigation including contributions to wetland trust funds, "in lieu fees" to organizations such as The Nature Conservancy, state or county natural resource management agencies, where such fees contribute to the restoration, creation, replacement, enhancement, or preservation of wetlands. Furthermore, examples of mitigation that may be appropriate and practicable include but are not limited to: Reducing the size of the project; establishing wetland or upland buffer zones to protect aquatic resource values; and replacing the loss of aquatic resource values by creating, restoring, and enhancing similar functions and values. In addition, mitigation must address wetland impacts, such as functions and values, and cannot be simply used to offset the acreage of wetland losses that would occur in order to meet the acreage limits of some of the NWPs (e.g., for NWP 26, 5 acres of wetlands cannot be created to change a 6-acre loss of wetlands to a 1 acre loss; however, 2 created acres can be used to reduce the impacts of a 3-acre loss.).

14. **Compliance Certification.** Every permittee who has received a Nationwide permit verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter and will include: a. A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions; b. A statement that any required mitigation was completed in accordance with the permit conditions; c. The signature of the permittee certifying the completion of the work and mitigation.

15. **Multiple Use of Nationwide Permits.** In any case where any NWP number 12 through 40 is combined with any other NWP number 12 through 40, as part of a single and complete project, the permittee must notify the District Engineer in accordance with paragraphs a, b, and c on the "Notification" General Condition number 13. Any NWP number 1 through 11 may be combined with any other NWP without notification to the Corps, unless notification is otherwise required by the terms of the NWPs. As provided at 33 CFR 330.6(c) two or more different NWPs can be combined to authorize a single and complete project. However, the same NWP cannot be used more than once for a single and complete project.

Section 404 Only Conditions: In addition to the General Conditions, the following conditions apply only to activities that involve the discharge of dredged or fill material into waters of the U.S., and must be followed in order for authorization by the NWPs to be valid:

1. **Water Supply Intakes.** No discharge of dredged or fill material may occur in the proximity of a public water supply intake except where the discharge is for repair of the public water supply intake structures or adjacent bank stabilization.

2. **Shellfish Production.** No discharge of dredged or fill material may occur in areas of concentrated shellfish production, unless the discharge is directly related to a shellfish harvesting activity authorized by NWP 4.

3. **Suitable Material.** No discharge of dredged or fill material may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.,) and material discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

4. **Mitigation.** Discharges of dredged or fill material into waters of the United States must be minimized or avoided to the maximum extent practicable at the project site (i.e., on-site), unless the District Engineer approves a compensation plan that the District Engineer determines is more beneficial to the environment than on-site minimization or avoidance measures.

5. **Spawning Areas.** Discharges in spawning areas during spawning seasons must be avoided to the maximum extent practicable.

6. **Obstruction of High Flows.** To the maximum extent practicable, discharges must not permanently restrict or impede the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

7. **Adverse Effects From Impoundments.** If the discharge creates an impoundment of water, adverse effects on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized to the maximum extent practicable.

8. **Waterfowl Breeding Areas.** Discharges into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

9. **Removal of Temporary Fills.** Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

[Excerpted from the December 13, 1996 Federal Register, Final Notice of Issuance, Reissuance, and Modification of Nationwide Permits (61 FR 65874)].

CONDITIONS, LIMITATIONS, AND RESTRICTIONS
(Information from 33 CFR 330.4)

1. **General.** A prospective permittee must satisfy all terms and conditions of an NWP for a valid authorization to occur. Some conditions identify a "threshold" that, if met, requires additional procedures or provisions contained in other paragraphs in this section. It is important to remember that the NWP's only authorize activities from the perspective of the Corps regulatory authorities and that other Federal, state, and local permits, approvals, or authorizations may also be required.

2. **Further Information:**

(a) District Engineers have authority to determine if an activity complies with the terms and conditions of a NWP.

(b) NWP's do not obviate the need to obtain other Federal, state, or local permits, approvals, or authorization required by law.

(c) NWP's do not grant any property rights or exclusive privileges.

(d) NWP's do not authorize any injury to the property or rights of others.

(e) NWP's do not authorize interference with any existing or proposed Federal project.

ADDITIONAL INFORMATION

For additional information concerning the nationwide permits or for a written determination regarding a specific project, please contact the office below:

In New Mexico:
Chief, Regulatory Branch
Albuquerque District, US Army Corps of Engineers
4101 Jefferson Plaza, N.E., Room 313
Albuquerque, NM 87109-3435
Telephone: (505) 342-3283
E-Mail: ceswa-od-r@usace.army.mil

In southeastern Colorado:
Southern Colorado Project Office
720 North Main Street, Room 205
Pueblo, Colorado 81003-3046
Telephone: (719) 543-9459

In southern New Mexico and western Texas:
El Paso Regulatory Office
P.O. Box 6096
Ft. Bliss, Texas 79906-0096
Telephone: (915) 568-1359

Information about the U.S. Army Corps of Engineers regulatory program, including nationwide permits, may also be accessed on our Internet page:
http://www.swa.usace.army.mil/reg/

This nationwide permit is effective February 11, 1997 and expires on February 11, 2002, unless sooner modified, suspended, or revoked.

Summary Version: 2/20/97

APPENDIX F

Public Comments

ORIGINAL

UNITED STATES BORDER PATROL

MARFA SECTOR PROJECT

PUBLIC HEARING

Taken November 18, 1997

Speakers:

Asst. Chief Rudy Rodriguez
Chief Simon Garza, Jr.
Judge Jake Brisbin

Permian Court Reporters, Inc.
Midland - Odessa, Texas (915) 683-3032

NOVEMBER 18, 1997

3:00 P.M.

MR. RODRIGUEZ: Ladies and gentlemen, I'm Assistant Chief Rudy Rodriguez of the United States Border Patrol. Welcome this afternoon to the meeting relating to the repair of Candelaria Road located south of us in Presidio County. Some of the people that will be participating in this meeting are Presidio County Judge Jake Brisbin, Commissions Jack Brunson, Chief Patrol Agent Simon Garza, Colonel Kelley, deputy commander of JTF-6, Major Tennant, staff engineer for JTF-6, Major Garza, engineer plans officer, Mr. Blankenship, environmental engineer.

One of the things that we ask is that -- when Judge Brisbin gives the closing remarks, we will then open it up for any type of questions that y'all may have.

The location of the project -- the construction project that JTF-6 is going to assist us with is located in this area. It will start -- part of it will be 2810. We will improve 2810, which is the Pinto Canyon Road, for those of you who are not familiar with the numerical designation for that road. From there -- from the Candelaria area,

we will repair the road that exists now all the way up to the Chispa Road area.

Also, there will only be a very small section of road that will be -- that will have to be built or constructed because of a huge rock that is out there that we could not do anything about. It's too big to tackle, as far as any type of demolition or any type of other methods of getting rid of it, so we left it alone. We are going to build a road around it.

Now, one of the things about this project is that, back in 1994, the Presidio County asked us for assistance in repairing these roads. We could not afford it during that time. Our resources would not allow for that type of -- for that type of project for the Border Patrol. And so we got ahead -- we went ahead and put a request through JTF-6, since the operations that we do in this area, as far as Border Patrol or narcotics interdiction, in addition to all the immigration enforcement laws that we do -- we got with JTF-6.

They went ahead and authorized the repair of this road and the portion of 2810. However, it was dropped in 1994 because of other commitments that the military had. Well, six months ago -- six

or eight months ago, we got contact -- or Joint Task Force-6 contacted us and said, "We will assist you. We will support you in your road project."

So they have been -- we have had the engineers go out there, survey the area. We have had contact with the landowners that are going to be affected, as far as where the road is located. We have also contacted all the other necessary entities that go along with a project -- a construction project of this magnitude.

One of the things about the road itself, how it's going to help the Border Patrol, one of the main goals of having this road repaired is this: The safety of our officers. Currently, the road does not lend for any type of a rescue operation or any type of situation where we may have an emergency in an area. If an officer gets in trouble here, we would have to go from Marfa, down Highway 90, down Chispa Road, and then get to them from the north side.

Or some of the area, if we try to go through to get to that officer through -- the south side is impassable, so it's a officer safety issue, as far as we are concerned. We are trying to improve the way we do operations with -- the main

goal in mind is to keep our officers safe, to be able to get to our officers if they get into any type of problem.

As far as the benefit to the community, all the communities located -- or the residents located in this area along the border will have a choice of either leaving that area, as far as traveling north, either through the river road up Highway 90, up Highway 67 or through 2810, and now they have -- they also have the option of following the river to Chispa Road, coming out to Highway 90 on to Van Horn or other places as they deem necessary.

As far as the benefit to the Presidio County as a whole, what's going to happen is this project will involve in excess of 200 soldiers out here. The soldiers, obviously, will have to eat, so there's a -- as far as the indirect economic impact on this area, we do not have an estimate, because we don't know if a soldier is going to stop and use the laundromat or go to the supermarket and so forth.

However, as far as direct economic impact to the Presidio County, we guesstimate or we estimate about -- or in excess of $100,000.00. The reason for that is because the construction project

itself will use up fuel, it will need dumpsters, it will need port-a-potties. All of that material will be gotten locally, so that brings in the economic -- direct economic impact to the Presidio community.

As far as the military, they also benefit. This is not just a Marine project or an Army project. There's going to be units from the Texas National Guard. There's going to be units from the Reserve units, regular Army, Marine units. Their benefit is the fact that they will train at what they are supposed to be working at, construction.

They will take on this project, and by the time they finish this project -- the terrain in this area lends itself or is similar to a lot of other terrain throughout the world where the military sometimes functions. That's the type of benefit that the military is looking at.

As far as the -- like I said, the project itself started in 1994, but because of other world commitments that the military had, they are finally able to give us that support assistance that we require.

We will be able now to travel through 2810. And the reason they are repairing 2810, if

it's necessary, is that they will be able to move some of their materials, some of their supplies, some of their equipment through this road to be able to get into this area to do the construction of the road.

There will be three buildings that are going to be built to house the soldiers. There will be a building up here, a building just up river from Ruidosa, and also one located within the Border Patrol property here in Marfa. That will house the engineers, the construction people that are will be participating in this construction project.

Also, the -- as far as -- like I said, the benefits to the community are in money and also in the road itself. We will be able to get emergency vehicles, and not -- and that's talking as a law enforcement officer, but not only that, you have got people that start living up in that area or people that want to move to that area. All of a sudden, they try to get cable. They can't get cable. Now they will be able to get cable because you will have a road that goes from Candelaria all the way up to Chispa Road.

Chief Garza will cover some of the other benefits that the Border Patrol has, as far as the

construction of this road.

MR. GARZA: Thank you. Once again, my name is Simon Garza, chief patrol agent here of the Marfa Sector. I just wanted to briefly say -- although I think Assistant Chief Rudy Rodriguez covered it, I want to point out a couple of other things about the road project.

One, what I think is important, it's being done in partnership with the military, being done in partnership with the county. And I think that that speaks well of the interest that all those entities have in the community.

I also want to point out that this project is in keeping with the Border Patrol national strategy. You have probably heard of it in the form of Operation Rio Grande. Operation Rio Grande is really the Texas phase of the national Border Patrol strategy. Therefore, by improving this road, we feel strongly that we will be able to improve our capacity to respond to sensors, to call out from the public.

We feel we will be able to increase the efficiency of our interdiction efforts. We feel that, in keeping with the vision of Operation Rio Grande, that it will help improve the quality of

life in Presidio County. And I think we have already touched on the ways that will occur.

We will have a stronger law enforcement presence here. We will have better, quicker, easier access to the properties. It also does -- it also benefits the landowners. And we really see this as a way of maybe, in the future, could eventually save somebody's life or save somebody from serious injury.

The present road is impassable in places, as has been pointed out. It is so rough to the point that it can cause severe damage to vehicles. And in my mind, I think it's good to point out -- not too quick to point out -- that we think that it will certainly improve conditions in Presidio County along the river. It will increase and improve our ability to respond, to do our job as law enforcement officers.

It will improve the ability of local law enforcement officers to do their job as well. And we have always worked in partnership with them, so we all feel there will be mutual benefits and gain from this project. And that's basically what I wanted to point out, is how it is in keeping with Operation Rio Grande.

We also think in -- as our strategy advances -- and we feel that much of the flow may be directed into this area. We feel that as more and more of the aliens are forced to have to use some of the more remote areas in West Texas, it will give us a better chance to respond in assisting them. In other words, should they get in trouble, we feel we will be able to respond to them that much quicker. So we have the humanitarian aspect here as well.

And so, basically, those are some of the points I wanted to touch on. I'll turn the remaining time back over to Mr. Rodriguez.

MR. RODRIGUEZ: The project itself, it's estimated that it will cost in excess of $1.5 million or the equivalent of $37,000.00 per mile. We could not undertake that project, because we could not afford it. The county couldn't afford it, so we asked for the assistance of Joint Task Force-6.

Through congressional mandate, they are allowed to support the United States Border Patrol in the interdiction of narcotics three ways: road construction, lighting along the border and also fencing along the border.

Other than that, that's all the comments

that I have. I will turn it over now to Judge Brisbin so he can go ahead and close it. After his closing remarks, we'll open it up for questions.

JUDGE BRISBIN: Well, I think, mainly, this time needs to be used for questions, but I would like to make a couple of general statements. First of all, of course, one of the obvious questions that come to mind whenever you are doing this and living in the area we are is the individual private property rights and the protection of private property rights.

I feel like the county is going to address them in a strong and assertive way. The contract we are going to draw up with the Joint Task Force-6 -- it's not finally approved yet, but as soon as it is, a copy will be made available to the public, and, of course, to the press. Those of you that know me know that I'm a strong believer of private property rights. We are not doing anything to infringe that.

The property owners themselves do want this road. At least the last time we went around, everyone signed off on it saying they wanted better access to the property, so we are trying to provide that.

Given the cost of this project, which I think has been estimated about a million and a half dollars, the county of Presidio is never going to be able to do this. We have never had that kind of money and I don't foresee us ever having that kind of money. So what we're looking for is an effort to, I guess, help the Border Patrol do their mission, help the military train and help us to get better roads. I mean, it seems to me like a win-win situation.

We haven't done this overnight. This has been thought about over a period of years. We have given considerable thought to it. We have had a lot of public input to it. And I think that we have done a responsible job of protecting our private property owners, but also giving our taxpayer the most that we can get from the sources that are available to us.

And I'm appreciative of the Border Patrol for doing this, and I'm appreciative of Joint Task Force-6 in this particular project. And I think with that, I think we'll just open this up to questions. I know some of you are bound to have some. Feel free to address them to me or to the chief or whoever you think is appropriate. Yes.

MR. POBST: Dave Pobst. Has anybody written anything down as to what the authorities are, responsibilities, the mission consists of and details of who is doing to do the drugs, who is going to do the illegals and so on and so forth? Is it going to be a big mix of responsibilities that we are not going to be able to watch?

MR. GARZA: No. Well, that exists now. We have our clear defined authority for the U.S. Border Patrol to enforce immigration laws. We also have authority that's been delegated to us from DEA to enforce by -- to interdict narcotics. As far as the authorities, they are clear-defined authorities, as far as the federal level. That is clearly defined. We have cross-designation from DEA and we have memos of agreement and understanding with DEA. We're clear on what our mission is.

And also, it will provide access of authorities of state and local officials as well. I can't speak for them, but I know -- I'm confident that they are clear in what their authorities are as well. And we think we have it -- it's all planned out. It's coordinated. There will be integration. We have that now.

As I mentioned earlier, we pretty much

work together. We integrate many of our efforts with state and local authorities. And we feel we have an excellent plan in place, and we don't feel that that will be a concern.

MR. POBST: Is it written down someplace where I can read it?

MR. GARZA: We can certainly get it and provide it.

MR. POBST: Can we publish it in the paper, something like that?

MR. GARZA: That's certainly very doable, and that's -- are you basically talking about our general authority? That is what you are talking about, correct?

MR. POBST: Well, we've got three or four -- we have got the Task Force-6 and the military. We have got the Border -- we have got the rest of the agencies. Pretty soon, we are going to get pretty military, and I just want to make sure that we don't let it tear us up, see?

MR. GARZA: Well, first of all, let me just point out, the military is only here for the construction project phase, only. They will be nothing in the way of interdiction efforts or any kind of an operation with us. They will come in,

they will do their project and they will leave. And then when they leave, it will be left to traditional law enforcement resources to go ahead and do their job and accomplish our mission as we basically always have. The only difference is, now we think we will be able to do it better because we will have better access into the area.

JUDGE BRISBIN: I didn't respond because I thought your questions were directed to the chief, but let me say this to you. I think I understand your concern. I feel the same way about -- I think I have made my feelings about the military used as a police force. My feelings are pretty clear about that, too. But my understanding, at least from the county's point of view, in this particular operation, that has no application here, because all they're going to do is help us rebuild the road that we have. Border Patrol is providing them security for them while they are here.

MR. RODRIGUEZ: The project will begin somewhere mid-January and terminate mid-April, and once it's terminated, the military picks up and leaves. That's all they are going to do.

JUDGE BRISBIN: Yes, ma'am.

MS. HINDS: Jane Hinds. I'm

concerned -- FM 170 is not in the best shape it's ever been in, but 2810 -- I mean, they are going to need to fix it for the -- I mean, if they are going to be driving a lot of heavy equipment over it.

JUDGE BRISBIN: From our point of view, that's what we're -- that's how we are hoping to get it done.

MS. HINDS: We've talked about that.

JUDGE BRISBIN: When you walked in, that was my first thought that that would be why you were here, because we've talked about this before. I spoke with Commissioner Ramirez this afternoon. He's real excited because he had made arrangements to get a dump truck that we had told you -- or he had mentioned to you that he needed to help aid with this work, but he thinks, in cooperation with it, once they get here, their commitment is to improve the road to the degree that they need to use it.

My hope is that once we get them here and they start working on this project, we'll get up there and get as much work done as we can. I think we are going to be able to do it. That was his feelings about it too.

Other questions from anyone?

MS. HINDS: Are any of the soldiers

going to be armed?

JUDGE BRISBIN: Actually, no. That's what I'm saying. Border Patrol is going to provide their security. They're not here to do any military training exercises, other than building a road. And I actually -- correct me if I'm wrong. Was that not at their suggestion?

MR. GARZA: That's correct. This is not an operation. This is a project, pure and simple, a construction project. We think it's a win-win situation for everybody involved. All we can see is that everybody stands to gain and benefit from it. Nobody is going to be encroaching upon our authorities or our duties or responsibilities. The military gets their benefit from the training, from the real world training and exposure to the real world situation. It serves their purpose and everybody wins.

JUDGE BRISBIN: I was shocked that they were willing to do that, because even -- I thought, at the least -- I knew they weren't supposed to be doing any military-type operations, but I figured they would want to do their own security, do the same thing they would do if they went to a foreign country and set this up. But

apparently they're comfortable with doing it this way, and I think that makes our citizens feel that much better, given the recent past history. Yes, sir.

MR. RITTER: Gene Ritter. With the governor leaning towards using military force to patrol the border, do you think this is the first step in that direction?

JUDGE BRISBIN: No, sir, I do not. I'm not speaking for the governor. My personal opinion is, no, I do not.

MR. KELLEY: If I may, I'm Colonel Kelley, Joint Task Force-6. Joint Task Force-6 has no law enforcement authority. None of the U.S. Military does. The only portion of the U.S. Military that has a law enforcement is the National Guard. So when we are talking about United States Marines, who will be working here, soldiers and reserve units, they have no law enforcement authority whatsoever.

Our mission is to support law enforcement agencies in the fight against drugs. That's what we exist for as Joint Task Force-6. So it's -- we respond to requests such as we got from the Marfa Border Patrol Sector to provide some support to

them, in this case, engineering support to improve the road system so that they can do their job better.

Our primary focus is to enable them to do a better job on stopping the flow of illegal drugs into this country, and then, of course, with other ancillary benefits to the community and to the Border Patrol in their primary mission of controlling the flow of illegal immigrants into this country. That's fine, too, and we feel very good about that. But we have no law enforcement mission, whatsoever. That's the job of the police. That's the job of the professionals like the Border Patrol. We exist to support them, and that's our only mission.

JUDGE BRISBIN: Yes, sir.

MR. HINDS: I'm Mr. Hinds, and I would like to know if the law enforcement in this area is interested in enforcing any law besides the drug laws, because we have had multiple burglaries in Ruidosa, and -- well, the first time, it took three days to get a deputy sheriff there.

JUDGE BRISBIN: Excuse me for interrupting. Would you like me to call the sheriff and ask him to come over here and respond?

MR. HINDS: No, I'm just curious. The store was broken into, what, a month ago. The old man -- one of the old men that lives out there is retired. His trailer was shot up. He hired me to patch the holes. I patched 19 entry holes in the thing, 30.06. And it's like, you know, if you say "drugs," everybody shows up. If you say "burglary" or "shoot up" or whatever, nobody seems to care. Are you going to use this road to help enforce other laws or is this strictly to help enforce drug laws?

JUDGE BRISBIN: I think that -- I'm speaking for the sheriff's department, which I probably shouldn't be doing, except as my capacity of CEO of the county, but I think that, yeah, the sheriff's department is very much in favor of having better access to that to provide better service.

But also, in fairness, I have got to tell you, with five deputy sheriffs and 4000 square miles, it's not going to make everything turn good. I mean, that's the key problem, is the area they have to cover and the number of officers that they have to do that.

I just spoke this morning with some people with the Justice Department. We are trying to get two additional deputy sheriffs under a Cops

Fast program, and we think we're going to get improved. We're hoping that will help the response time. You are right in that, no, our response time is not that good and -- but in our defense, I have got to tell you, with the limited funds we have to do, it's pretty hard for five men, 24 hours a day, to cover 4000 square miles, and that's what we are being asked to do, basically.

MR. HINDS: I understand that, but if somebody calls in and says, "Hey, I think there's a load of dope coming across," they are there.

JUDGE BRISBIN: You're right. I know what you are saying. The DEA and people like that, that's their mission.

MR. HINDS: A business gets burglarized or a trailer gets shot up, you know, it's -- there's other crimes going on down there besides drug smuggling.

MS. HINDS: We do have a great deal of problems with that.

JUDGE BRISBIN: Pardon me, ma'am?

MS. HINDS: We have a great deal of problems with that.

MR. GARZA: Border Patrol doesn't have authority in that area. We do reside in this

community, along with everybody else, and we feel that the road will obviously increase visibility, so we will have a -- law enforcement will be more present there because of the road. Access will be easier, and we will respond to requests from law enforcement agencies to assist.

We don't have primary authority to respond to the kind of things you are talking about. However, we do feel that we will have increased presence. We will have more visibility. And we do have -- I mentioned Operation Rio Grande. Along with that means more resources coming into the area. We think there will be even increased, even higher visibility in the future.

The roads will be just one of the tools that will help us increase that visibility. Because, really, the secret, we feel, to our success along the border in the future is deterrents. As opposed to also being responsive, we will actually deter things from happening. We think this is one of first steps in accomplishing that.

MS. HINDS: Is there any possibility of stationing somebody down there? We are so isolated. The last time I called Border Patrol to ask questions, it was during the stand-off in

Fort Davis, and I was told over the phone -- I did not get a name -- that they were too busy in Fort Davis to respond. Well, Fort Davis is quite a ways from the border --

MR. GARZA: Well, even to respond to your inquiry, I can tell you this: That won't happen now that I'm here.

MS. HINDS: That's good to hear.

MR. POBST: How will these people be billeted? We have got military and Task Force-6 and Border Patrol. Incidentally, do we get also more Border Patrol as the months go by, or do we work with the same quantity of patrolmen we have got now?

MR. GARZA: Deployment plans are currently being devised to enhance the manpower strength here in the Marfa sector. The numbers have not been finalized. We're looking for growth for fiscal year '98. We're looking for growth for fiscal year '99 and 2000 as well. And we are making -- we are presently planning for that growth now. The allocations have not been determined as of yet. We will be growing. There will be enhancements. I'm already in touch with the communities, because we will be having more families

coming in and we will need to be able to house those families and provide for their needs.

MR. POBST: Will they be housed in Marfa and Presidio?

MR. GARZA: And the surrounding areas as well.

MR. POBST: Will there be anyone along the river?

MR. GARZA: Well, all I can tell you is, in our long-range plans, we were constantly discussing our options. And I cannot -- I could tell you that that --

MR. POBST: As of right now, no?

MR. GARZA: Nothing is finalized. We are discussing our options, because we do want to operate smarter. We want to be responsive to the community and to our area.

MR. POBST: Where will the military people be located?

MR. GARZA: You're talking about only during the project itself?

MR. POBST: Yes.

MR. GARZA: During the project itself, I think it's been pointed out, they will be in these three areas. They are going to make their

own -- create their own billeting, which will be here on the north end of the project. It will be here on the south end. And then we will have some facilities right here in Marfa itself. That's where they will be.

MR. POBST: About how many personnel; do you know that?

MR. GARZA: While they're working, they'll be all along the road. Are you talking about where they will be billeting and staying?

MR. POBST: I'm talking about how many individuals we'll have.

MR. TENNANT: I'm Major Tennant, staff engineer for Joint Task Force-6. We are going to be rotating several units through the project, four engineer units. At any one time on the ground, you will have between 175 and 200 Marines or soldiers. Total throughout the project could approach 600 Marines and soldiers, but at any one time, 200 or less.

MR. POBST: Now, they have no -- as I understand it, no authority for law and order control, but what happens if there's -- tensions stir up and you decide to arm? Would that be a possibility.

MR. TENNANT: No, sir. If a situation arises and tensions stir up, we are going to pull them out.

MR. POBST: Border Patrol will provide all the protection these people are going to need?

MR. TENNANT: Yes, sir.

MR. KELLEY: Border Patrol and local law enforcement agencies, yes, sir.

MR. RODRIGUEZ: There's a part of your question that wasn't answered, sir. The billeting, as far as the units, obviously, they have to live somewhere while they are building the building. For a couple of days -- I'm not sure of the time period -- but they will be camped at the area where they are constructing the building. Once the building is finished, they move into the building that will have running water and all the comforts of home.

JUDGE BRISBIN: When they leave, the building stays, too, with the landowner.

MR. HINDS: Apparently, this road is running along the river. North and south of this area, are there other roads that skirt the river and have they been worked on or any idea of any requests

made for upgrading on those in other counties perhaps?

JUDGE BRISBIN: For years, Mr. Cordero tried to get Casa Pieta Road and Pinto Canyon Road both paved. We have been unable to get funding for that, at this point. And so, no, not at present.

MR. HINDS: Well, do you know of any counties with roads along the river -- are they doing the same thing or similar to what's going on here?

MR. GARZA: I can tell you that -- and Joint Task Force-6 will speak for themselves. This is not the first time this kind of project has been undertaken. We have had tremendous success with Joint Task Force-6 assisting us on other Border Patrol projects in other locations, so it won't be the first time it's been done. We have an excellent track record with them. We're enjoying success with it now in other locations. This is maybe the first in our area, but it is not unique or nothing new.

MR. HINDS: Right.

MR. KELLEY: I can add to that. We recently completed a project that lasted over a year out in San Diego County in the (inaudible) mountain

area. It was a road that, in total, was 20-something miles, that you think, good grief, here we're doing just 20-something miles, but it was very, very rugged terrain up through the mountains. That road, shortly after it was completed, was credited with saving the life of a Border Patrol agent because they were able to get that agent out after the agent had a heat stroke. Otherwise, they would not have been able to do.

It also has been credited with enhancing the safety of persons that live in the east county area because their local law enforcement, that is to say, state and local, as well as the Border Patrol, have greater access to the area to protect them from people who are criminal element who used to hang out in that area and now avoid that area because of the easy -- of the easy access by law enforcement personnel.

It also has enhanced the safety of the area because they have a big problem in that area, as you probably know, with brush fires. And in the past, when the brush fires got going, they had no access to get the fire trucks back there when they were easy, controllable and small. They do have that capability now, so they estimate -- the fire

department in San Diego County estimates it's going to save thousands and thousands of acres, not to mention homes and possible lives, that they would routinely lose during a fire out there.

So these are all ancillary benefits for the construction of that read, once again, in partnership with the United States Border Patrol and the Department of Defense.

MR. POBST: Will there be any provision for maintenance after the road is completed and the task force has moved out?

JUDGE BRISBIN: No, sir. The maintenance is the responsibility of the county, and we'll do that as -- I mean, the maintenance right now is the responsibility of the county, which is one of the reasons why it's in as poor shape as it is because of our lack of funds, being able to maintain it properly.

MR. POBST: Is it the same kind, same specification of road that we have had through the last couple of hundred years there?

JUDGE BRISBIN: What was the question? I'm sorry.

MR. POBST: The same kind of road, no culverts, no crossings?

MR. TENNANT: We are going to be putting in drainage structures throughout the route, culverts, low-water bridges where they're required, etcetera. We are going to put in hard surface gravel, ground. It should drain right and it should last much longer than what's out there now lasts.

JUDGE BRISBIN: But it won't be a superhighway.

MR. GARZA: It won't be a superhighway, but you will be --

MR. POBST: Is any of this written down someplace, too, specs on that road?

JUDGE BRISBIN: I'm sure you have them.

MR. POBST: Would be nice to be able to see.

MR. TENNANT: We are in the process of designing the road. In fact, I can show you up on the map, if you like, after we conclude the formal session.

MR. POBST: I just wondered if there are any specifications.

MR. TENNANT: We have design details for drainage structures. We have the route center line, okay? Generally, when we do a military

construction of this type, we don't write out formal specifications like you might see, because it's a standard road. I mean, it is a military road.

MR. POBST: You have got it, but it's not written down where I can read it?

MR. TENNANT: Right.

MR. POBST: Okay.

JUDGE BRISBIN: We have nothing to lose. The road is so poor right now.

MR. POBST: Right.

MS. HINDS: Maybe get some concrete on 2810 in those low-water crossings, too?

MR. TENNANT: In those areas where we plan to work --

MS. HINDS: No, I'm talking about the road between here and --

MR. TENNANT: We are doing some work on 2810.

MR. POBST: That's the one that's got the reinforcing rods sticking up out of the concrete.

MR. TENNANT: That would be for the planner, Major Garza. I personally have not driven that road. I've only flown over it.

JUDGE BRISBIN: When he drives it,

he'll relate to what you're saying.

MR. GARZA: I'm Major Garza with the -- engineer staff planner, Joint Task Force-6, working this project. In reference to the low-water crossings on 2810, the state route there or the farm-to-market road, we have looked at improving the low-water crossings by replacing concrete ducts.

MR. HINDS: Will the voters have any say in this, on a final decision?

JUDGE BRISBIN: On doing this? Only through their elected officials. It's not going to be put to a referendum or anything. Personally, at this point, I don't know who is not in favor of having a better road. I haven't been approached by anyone. As long as the concerns about private property rights and the militarization of the border issues are addressed, I haven't had anyone come in and say they're not.

I think most of us are appreciative of having a better road, because I would be the first to admit to Ms. Hinds or anybody else that our commissioners do the best they can with what they have to work on on our roads, but the truth is, they don't have the equipment, they don't have the money and we don't have the manpower to take care of them

like we should. So they are constantly battling trying to do as much as they can with a very poor amount of money to do it with.

MR. HALPERN: Robert Halpern, Marfa and Presidio newspapers. Let me -- nothing personal. Let me play devil's advocate. The last time the Border Patrol, Joint Task Force-6 and Marines came together, an innocent young man died, so what's different about this, you know, mission or project or operation or whatever you want to call it? Similar circumstances, rural area, you know, totally similar circumstance.

MR. GARZA: Although there may be some similarities in the area, that's where the similarities end, because first of all, your reference to Redford, that was an operation. We made it clear from the beginning, this is a project. We have made it clear that this is something that has been planned, is not in response to something that's happening in an operation sense on the border. This is a construction project that's responsive to the needs of the county, to the community.

We have already mentioned that the soldiers coming down will not be armed. They will

not be doing any kind of interdiction effort at all, no patrolling, nothing of that nature. The distance from Redford is, what, in the area of 60, 70 miles, I believe, somewhere -- I don't know exactly what it is, but it's somewhat removed.

The mission is entirely different -- it's not a mission in the sense of an operational mission. It's a project, pure and similar. It's been planned from the beginning to be different. The objectives are different. The personnel brought in are different. And the benefits we are looking for are entirely different. There's really no comparison.

MR. BRUNSON: I'm Commissioner Brunson. Would one of you explain Joint Task Force-6, Armed Forces, Border Patrol, explain why Joint Task Force-6 is not a task force, per se, by itself? Would you please do that, Chief? Explain how this is made up.

MR. GARZA: Well, what you basically have in Joint Task Force-6 -- although I would like to have the military counterparts offer an explanation as well, I'll try to put it in simple terms. Basically, Joint Task Force-6 was created to assist to provide military resources, to put them in

the hands of law enforcement so that we can better do our jobs, realizing that we are shorthanded, understaffed, undermanned, not properly trained to accomplish certain missions, and this is the resources that we have from the military.

Joint Task Force-6 was built -- you start with things that -- we're going to get the law enforcement -- they do -- in a sense, they prioritize what needs to be done. They deconflict what's being done. They make sure that they are working within their authorities and working things together. And it is really quite an amazing operation that they have there. Basically, their mission in life is to support law enforcement, and they do it through all the collective resources of the military.

I also want to point out, talking about mutual benefits, the military units that come down here, they are not ordered to come down here or they are not mandated to come down here. They are all volunteer units. They are all here because they want to be. And Joint Task Force-6 does that level of coordination.

And there's other agencies that work for us, law enforcement, like Operation Alliance, for

example, that also help out with receiving the -- with receiving, prioritizing and deconflicting all the requests. Now, in laymen's terms, that's it. I can't get into the specific mission of JTF-6. I would have to let the military do that, but that's the way I look at it.

They are our partners in accomplishing our mission along the border. JTF-6 stands for Joint Task Force-6. It's a group of military that have been put together to assist law enforcement, you know, pure and simple.

MR. RODRIGUEZ: Also, I think sometimes the confusion comes from the "Task Force" because of the Permian Basin Task Force, the Alpine D.A. Task Force. However, the big difference is that this task force cannot arrest people for narcotics or any type of violation.

MR. BRUNSON: That's what I wanted to be clear, so everybody would understand. It seems to be the thought that we would have three different outfits running amuck over here, the Army -- the military, the task force and Border Patrol. It's one joint cooperative unit.

MR. GARZA: One joint cooperative unit. The level of each group's coordination is

really rather impressive. There's no sense, in my mind, that there's any kind of stove-piping or anything along those areas. It's all coordinated. It's all organized. They're thoroughly integrated. We're all singing off the same sheet of music and we'll working as partners.

MR. KELLEY: I can't add a whole lot from what the chief and Rudy said. You guys have got it right. We exist for one purpose and one purpose only, and that is to provide support to the law enforcement agencies, you know, federal, state and local, in the fight against drugs. That's our sole purpose in existence.

We work -- in fact, we have the senior agent Larry Kaler here from the Border Patrol. He is from Operation Alliance in El Paso. He has co-located with us. And Operation Alliance, which is composed of law enforcement agents, they get all of the requests, such as from the Marfa Border Patrol Sector, for assistance. They are the ones that get the requests. They are the ones that make a determination if that's a valid request from a law enforcement perspective.

They prioritize those requests and then they provide them to us. So then they would tell

us, they say, "These are the missions that law enforcement agencies want through the country. These is the prioritization of those missions," and then we take those missions on and we coordinate with volunteer units from the active forces, the Reserve forces and oftentimes from the National Guard to execute these missions.

JUDGE BRISBIN: Commissioner Cordero, you wanted to say something?

MR. CORDERO: First of all, I want everybody to know that this project is something that I wholeheartedly support because, through Border Patrol, we are going to get something for the county that has been needed for a long time. That is -- I hope it's a done deal.

I will say one thing. I was in El Paso last Friday all day. We met with the state comptroller. There was U.S. congressmen, state senators, state representatives, and in an attempt -- it was more of a -- what you got is what you got. Those of you who know me know they got an ear full.

Going back to -- that's the first constructive meeting that I have had in a long time. We let them know what the state has done to

us, as far as getting the Pinto Canyon, the Casa Pieta, entrance to their state parks so people can have access to them so we can keep them here longer so we can't tax anybody else -- and I know about taxation -- we can keep that sales tax, keep people in here where they spend money in Marfa and Presidio a little bit longer.

The response was very positive. I let them know there is somebody here with a better import/export, not just for national, but international, Asia or Europe, import system that come through Presidio, but I told them the economic input that there was, could be here, if the big guns, politicians would only pay attention to economics instead of political ties and keep jumping back and forth from Laredo to El Paso.

I have not had the opportunity to talk to the chief, but I have talked to the past chiefs. I think there are some people here with the Border Patrol that have been in some of the discussions that we have had in the past. The military might not like what I'm fixing to say, but maybe they do.

While we were there, we had an opportunity to air out a program that we were opposed to in the past about opening the border

between El Paso and Big Bend National Park, not just for our tourist end of it, but also for surveillance and traffic along the border, relations between two countries. The response first by the highway department was kind of negative, "The state of Texas hasn't got that kind of money to do it."

I said, "We understand that." I said, "I'm not from Presidio, but I know economics a little bit, because we have to pinch our nickels and dimes, and this is going to do a tremendous job for us, but we cannot ever do what we intend to do unless somebody like y'all do it."

The presentation was that if every respectable town between here and El Paso County, which they wholeheartedly support it, in their own respectable jurisdictions would come up with (inaudible) along the border, with support of law enforcement agencies, from customs, everybody that's involved, even the military, we support the program. We could turn around and have the state of Texas turn it over to a military operation for training purposes.

The reason I say training purposes is because, in the past -- I'm going on 16 years in office. At one time, the Corp of Engineers looked

for things that needed to done, what needed to be done, everything else in this part of the country. At that time, we didn't have anything except there was a dam above Candelaria that, for flood control purposes, that everybody supported simply to save the big dams below us form silting up the ocean that comes out of the southwest.

So we had all these people up there and everybody came to realize that there is something. There's not a hole between Laredo and El Paso. They found out there is a big possibility of economic development in this part of the country where -- I have to go into the details. You have the line from (inaudible) into the Gulf of Mexico with a facility and an airport and not a whole lot of -- an air base facility located up here about nine miles east of it, but it joins the southern Pacific and it joins south of (inaudible).

So I just wanted to let you know that the county is trying to work into bettering our road systems, and we are looking at the future of perhaps the Border Patrols and their operations. We can, if not, go all the way across, we could at least extend, like y'all are talking about in the San Diego area, come from El Paso or extend from

here on up a little bit further. So we can have surveillance or we would like to have -- one of the third things we would like to have is good relations with Mexico.

I don't know what else in this county would help a relationship between Mexico and the United States, create a system where both countries could have access to the border, for whatever purpose. It is as well as -- let you know that I was there, fighting. We met at length, and we have -- at least we have somebody in congress that's already aware of it.

Just so happened that the mayor from El Paso, his mother was originally from Presidio. The congressman's father was born and raised in Sheffield, so they said, "Give us an opportunity to go down there." That's all I have got to say. We worked for something.

JUDGE BRISBIN: Other questions? Anyone?

MS. JARMAN: I'm Darlene Jarman with the Alpine Avalanche. I have three questions. One, will we have officers in charge of this program and will they be here the entire time of the project?

MR. GARZA: Are you talking about

with the military?

MS. JARMAN: Military officers.

MR. TENNANT: The ones we deploy will have their entire chain of command, so you will have officers around.

MS. JARMAN: And will the people that are doing the work be in uniform?

MR. TENNANT: Not this. They will be in the uniform which is usually -- they will be in the duty uniform, camouflage pattern.

MR. KELLEY: They will be wearing a working uniform.

JUDGE BRISBIN: Y'all don't build roads in ties?

MR. KELLEY: No, but they also will have -- one thing that I'll add is that the whole time the units are working, they will have Border Patrol agents on the scene with them. That is to provide, make sure it is -- one, it's fully coordinated with the Border Patrol, and also to provide the -- what we call force protection or security for the equipment and that sort of stuff, because they are going to be bringing in, as you can well imagine, hundreds of thousands of dollars worth of heavy equipment and supplies. Border Patrol will

be providing security on scene for all of our procedures.

MS. JARMAN: The buildings to be built for them to house in are down there in the area of the project?

MR. TENNANT: I can show you on the map.

MR. KELLEY: Actually, we're going to build three buildings.

MR. TENNANT: Two of them there at the location, one in Marfa.

JUDGE BRISBIN: Other questions?

MR. HALPERN: Just to reiterate for me, if you would, it's going to be 600 troops, 200 at a pop, but 600 troops rotating in and out; is that correct? There will not be one side arm?

MR. TENNANT: Not one.

MR. HALPERN: Who will provide security? Will there be like agents on site billeting with them, or will they come out during the day or at night? How will the security --

MR. GARZA: Right. We will be actively engaged in providing that level of security. We may also have use for protection resources. We may be able to use some of our

technology as well for that. We will use adequate measures of taking -- providing the appropriate level of security. And we've also mentioned earlier, and I'll mention it one more time, we'll use the help of local law enforcement also to provide security.

JUDGE BRISBIN: Any other questions? Yes, sir.

MR. RITTER: You have got me with this protection of resources. Like tractors or --

JUDGE BRISBIN: Tractors, equipment, etcetera.

JUDGE BRISBIN: Any other questions?

MR. RITTER: Clarify.

JUDGE BRISBIN: Robert. Take your time.

MR. HALPERN: What is the impact, or like, what are the landowners going to have to do to get -- as the road goes through their property, you know, what is the extent of the environmental impact statement?

MR. TENNANT: Actually, we have already started the environmental assessments on this project. Those assessments cover the activities of the federal agencies involved. We

have to do that under the National Environmental Policy Act, okay? It will -- the assessments will tell us whether what we are doing has a detrimental impact to the environment or not.

Now, our command policy is avoidance, so if we come across something which we may disturb, we are just not going to mess with it. We're going to go around it. We have been successful in that policy over the five years. And Mr. Blankenship, if he's still here, he's our long-term environmental specialist. He can talk to you in detail about our track record. But we have never had a serious environmental incident.

Those documents as such will be put out for public review. Everybody -- everyone here -- we'll probably have one sitting in this courthouse for everyone who wants to look at it. It will explain exactly what we are going to do, what we think the impacts may or may not be, and what we're going to do to avoid any type of environmental problem.

MR. HALPERN: There's something like 300 property owners you are going to have to contact?

MR. TENNANT: It's 37, I believe.

MR. GARZA: Right.

JUDGE BRISBIN: Robert, also, the agreement that the county will sign with the Joint Task Force-6 does not give them access to anything but the county road. They won't be on private property owner's land without private property owner's permission.

MR. TENNANT: In fact, to really nail this point home, if we are not able to get right-of-entry permits signed by all the landowners, we cannot go on that land.

JUDGE BRISBIN: Other questions?

MR. BRUNSON: Might point out, they have access to county roads.

JUDGE BRISBIN: Right.

MR. BRUNSON: If I say no, you're going to turn around, but you can pass through on the county road?

MR. TENNANT: My only point is, we cannot go on to private property unless we have a right-of-entry permit from the property owner. There won't be any of that happening.

JUDGE BRISBIN: Anything else? If not, that will conclude the public part of our hearing. Anybody that would like to stay around and

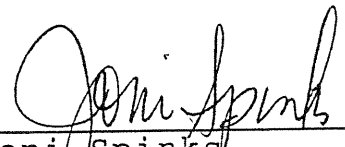
visit with the chief for a minute, feel free to. I have a court hearing in two minutes.

(END OF PUBLIC HEARING)

THE STATE OF TEXAS)
COUNTY OF MIDLAND)

I, Joni Spinks, Certified Shorthand Reporter for The State of Texas, do hereby certify that the above and foregoing contains a true and correct transcription of all the proceedings AS were reported by me.

Witness my hand this the 24th day of November, 1997.



Joni Spinks
Certified Shorthand Reporter
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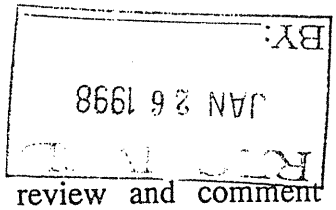
INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

JAN 23 1998

Ms. Linda Ashe
Environmental Resource Specialist
CESWF-EV-EE
United States Army Corps of Engineers
Fort Worth District
P.O. Box 17300
Fort Worth, Texas 76102-0300



Dear Ms. Ashe:

Thank you for the opportunity to review and comment on the January 1998, Draft Environmental Assessment (EA) for Proposed JTF-6 Mission JT423-98 Marfa, Texas. The EA was prepared for Joint Task Force Six by your office and describes certain improvements and other construction in the United States Border Patrol (USBP) Marfa Sector. The proposed action would include several activities such as construction of K-span buildings (a type of storage shed, as we understand) at three base camps and one at the Marfa airport; construction of two helicopter landing pads; new road construction and road improvements with numerous low-water crossings over arroyos and other natural drainages to the Rio Grande, with some structures; and construction of storage yards to name a few. We observe that the study area covers the general reach of the Rio Grande from River Mile 1,016.33 at Ruidosa, Texas crossing to River Mile 1,093.33 at the Tri-County Line where Hudspeth, Jeff Davis and Presidio counties meet on the Rio Grande (based on the International Boundary and Water Commission, United States and Mexico [IBWC] mileage maps beginning from the Gulf of Mexico). We understand that an unspecified number of miles of road improvements would be located very near the left bank of the Rio Grande.

As you are aware, the United States Section, IBWC (USIBWC), by virtue of the 1944 Water Treaty (TS 994; 59 Stat. 1219) and other water and boundary treaties and agreements concluded by the United States and Mexico, is responsible for ensuring that the United States Government meets the obligations and ensures the rights incurred by the United States in those agreements. The USIBWC's statutory authority for carrying out actions in the United States under these water and boundary treaties rests in 22 U.S.C. 277 a-d.

Specifically, in this area the United States and Mexico have established areas of limited allowed construction of 100 feet (30.5 meters) measured from the center line of the Rio Grande and the preservation of a 25-foot (7.6-meter) wide strip of natural vegetation along each bank in the Cajoncitos, Chihuahua to Haciendita, Texas segment (IBWC Minute 262 of December 26, 1979). Within this area in their respective territory, by virtue of Article IV of the 1970 Boundary Treaty (23 UST 371; TIAS 7313) the United States and Mexican Governments, prohibit the construction of works which, in the judgment of the IBWC, may cause deflection or obstruction of the normal or flood flows of the Rio Grande.

Further, the United States and Mexico have assumed various obligations regarding the waters of the Rio Grande in the study area. These include boundary preservation, stream gaging, water quality monitoring and studies and investigations as the IBWC may consider in application of applicable international agreements. For all these purposes, the 1944 and 1970 Treaties establish that IBWC personnel involved in these activities may freely carry out their observations in the territory of either country and transit across the boundary without immigration and customs restrictions.

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The EA indicates that some of the work will be within these restricted use zones. Accordingly, we ask that you provide the details of the construction work proposed within these areas for our review and submittal to Mexico and in this manner allow the IBWC to make a judgment on behalf of the United States and Mexico of whether the proposed works would cause deflection or obstruction of normal or flood flows. Therefore, the USIBWC opposes the issuance of a FONSI until such time that the IBWC may make its judgment.

The USIBWC maintains a stream gaging station located on the left bank of the Rio Grande at San Antonio Diversion Dam, latitude 30°10'30", longitude 104°41'10" and river kilometer 1,672, 0.5 kilometer upstream from Capote Creek and about 4.0 kilometers north of Candelaria, Texas and San Antonio, Chihuahua. This is near the lower end of the Candelaria Border Road and New Road project areas. We do not foresee the proposed action having an impact on our stream gaging operations, but we would like for your work to be coordinated with our Project Manager in Presidio, Texas. His name, address, and telephone number are provided at the end of this letter.

Also, the proposed action should not have any effect upon the Rio Grande Boundary Preservation Project (Preservation Project), a segment of which extends from Capote Creek downstream to Ruidosa. The Candelaria Border Road and New Road project areas are immediately upstream from this segment and should not impact upon it. The terminus of the FM 2810 Project Area is at Ruidosa, the lowermost end of this Preservation Project segment. The improvements to FM 2810 apparently will not reach the river; therefore, no impacts are expected by that work. Other proposed construction is far enough away from other segments of the Preservation Project to not be of any concern to the USIBWC.

The USIBWC is obligated to mention that actions involving use of military personnel along the border often tend to strike certain sensitivities in the United States and Mexico relationship. The Department of State (Department), of course, needs to be informed of these international concerns. The USIBWC is informing the Mexican Section, IBWC, regarding the aspects of the proposed action that impact on the international agreements entrusted to the IBWC. At the same time, the Department has established a liaison with the Department of Defense activities along the border involving military personnel. Your document does not indicate a coordinated effort in this respect. We ask that you provide a copy of the environmental documents to the Department. At the same time, we are providing to the Department with the information on our review of these documents for the Department's use in the context of the United States and Mexico relationship.

We ask that a FONSI not be issued until we complete the consultation with the Mexican Section, IBWC, and the Department. We are concerned, that JTF-6 provided the draft document for review with a short review time. We urge you to extend the comment period to 30 days and in the future provide at least a 30 day comment period.

Thank you for the opportunity to review and comment on the Draft EA for the proposed JTF-6 project in the USBP Marfa Sector. Please notify Mr. John Lee, Project Manager, USIBWC Presidio Field Office at (915)229-3751, thirty (30) days prior to the construction start date. If you have any questions regarding these comments, please call Mr. Douglas Echlin of my staff at 915/832-4150, extension 2. Also, please provide me with two copies of the Final EA when it is available, and provide one copy to Mr. Lee, USIBWC Field Office, P.O. Box 848,

Presidio, Texas. We want to work with you to ensure that international impacts are not caused by the proposed action.

Sincerely,

Douglas Cobb

for Yusuf E. Farran, P.E.
Division Engineer
Environmental Management Division

cc: Dr. Dan L. Wilkinson
Vice President
Environmental Division
Geo-Marine, Inc.
550 East Fifteenth Street
Plano, Texas 75074

RESPONSES TO COMMENTS RECEIVED ON DRAFT EA
PROPOSED JTF-6 MISSION JT423-98
MARFA, TEXAS

Comment

The United States Section, International Boundary and Water Commission (USIBWC) wishes to exercise their right of judgment, under the general authority of 22 U.S.C. 277 a-d, as to whether the proposed action impacts any treaties the United States has entered into with Mexico. Specifically, the USIBWC cites the 1944 Water Treaty (TS 994; 59 Stat. 1219: 22 U.S.C. 277 a-d) under which they are responsible for ensuring the United States Government meets obligations and ensures the rights incurred by the United States in treaties and agreements. The USIBWC also cites Article IV of the 1970 Boundary Treaty (23 UST; TIAS 7313). Under this treaty an area of limited construction is allowed within 100 feet measured from the centerline of the Rio Grande. The USIBWC wishes to make a judgment whether the proposed action would cause deflection or obstruction of normal or flood flows. Complete consultation with the Mexican Section, IBWC, and the State Department has been requested by USIBWC.

Response

The United States Corps of Engineers on behalf of JTF-6 has assured the USIBWC construction activities in proximity of the Rio Grande River will not be conducted until the USIBWC completes their consultations as required by the 1944 Water Treaty and the 1970 Boundary Treaty. (See enclosure 1).